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22 April 2014

Mr. Roger Papler
California Regional Water Quality Control Board
San Francisco Bay Region
1515 Clay Street, Suite 1400
Oakland, CA 94612

Subject: Report of Results – Potential Vapor Intrusion
Evaluation at the Former Siemens Facility
Intersil/Siemens Superfund Site
Cupertino, California
Site Cleanup Requirements Order No. 90-119

Dear Mr. Papler:

On behalf of SMI Holding LLC (SMI), ERM-West, Inc. (ERM) has prepared this *Report of Results – Potential Vapor Intrusion Evaluation at the Former Siemens Facility, Intersil/Siemens Superfund Site* located in Cupertino, California.

If you have any questions regarding this report, please do not hesitate to contact me.

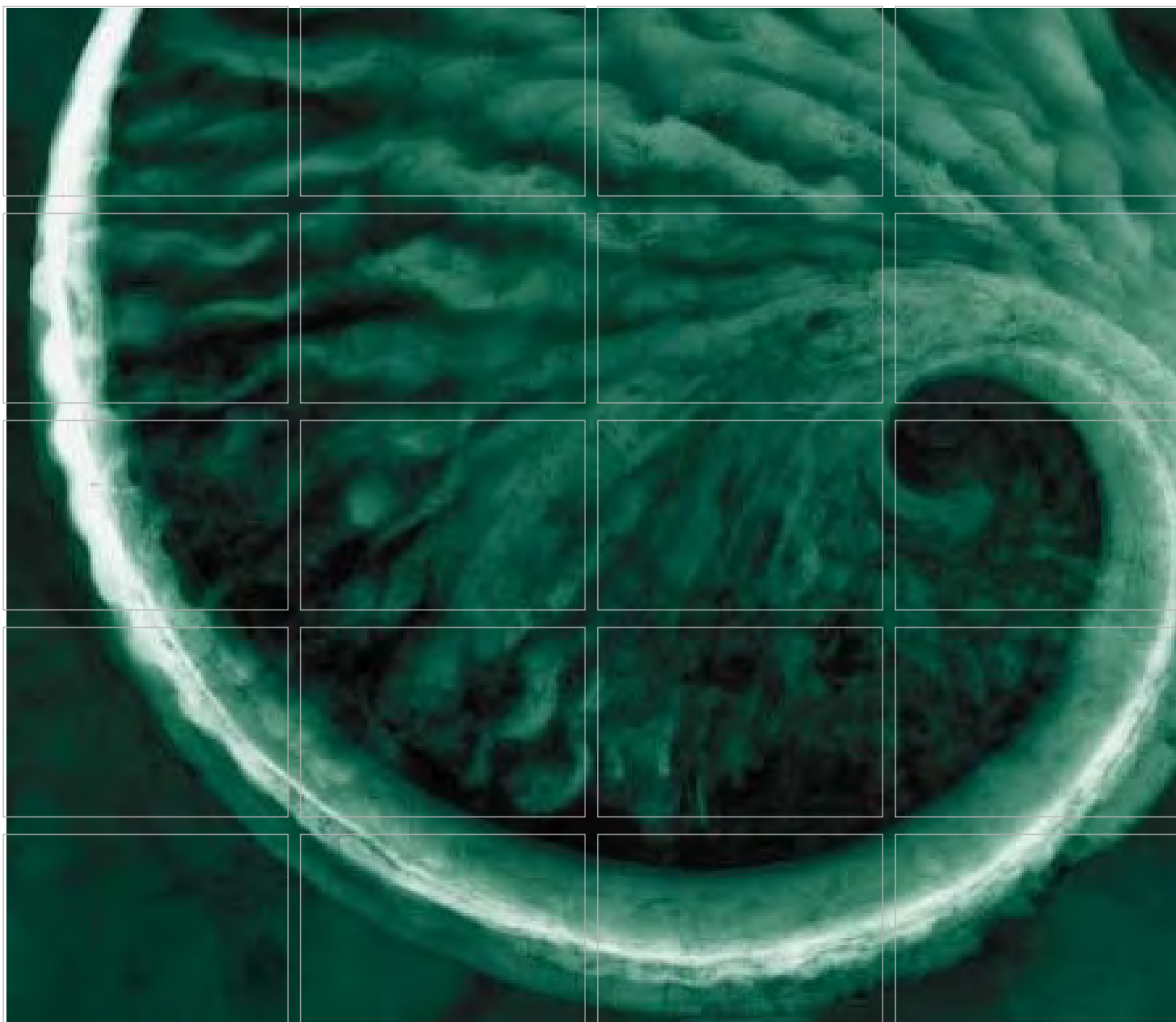
Sincerely,



Heather Balfour, P.E.
Project Manager

HDB/dao/0201040.01SC

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Report of Results – Potential Vapor Intrusion Evaluation at the Former Siemens Facility

Prepared for:
SMI Holding LLC

**Intersil/Siemens Superfund Site
Cupertino, California
Site Cleanup Requirements Order No. 90-119**

April 2014

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SMI Holding LLC

Report of Results – Potential Vapor Intrusion Evaluation at the Former Siemens Facility

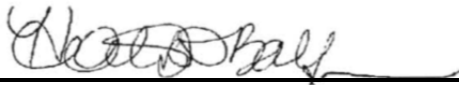
Intersil/Siemens Superfund Site

Cupertino, California

Site Cleanup Requirements Order No. 90-119

April 2014

Project No. 0201040.01SC



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TABLE OF CONTENTS

LIST OF FIGURES	<i>ii</i>
LIST OF TABLES	<i>ii</i>
LIST OF ACRONYMS	<i>iii</i>
EXECUTIVE SUMMARY	<i>iv</i>
1.0 INTRODUCTION	1
2.0 BACKGROUND	2
2.1 CONSTITUENTS OF CONCERN AND SCREENING CRITERIA	2
2.2 FORMER SIEMENS FACILITY	3
2.3 PREVIOUS VAPOR INTRUSION INVESTIGATIONS	4
3.0 2014 SAMPLING EVENT	7
3.1 PRE-SAMPLING ACTIVITIES	7
3.2 INDOOR AND AMBIENT OUTDOOR AIR SAMPLING LOCATIONS	8
3.3 INDOOR AND AMBIENT AIR SAMPLING ACTIVITIES	8
3.4 HEATING, VENTILATION, AND AIR CONDITIONING SUSPENSION	9
3.5 FIELD METHODOLOGY	9
3.6 LABORATORY ANALYSIS	11
3.7 METEOROLOGICAL DATA	11
3.8 ANALYTICAL RESULTS	11
3.9 QUALITY ASSURANCE/QUALITY CONTROL EVALUATION	12
4.0 CONCLUSIONS AND RECOMMENDATION	14
5.0 REFERENCES	15

LIST OF FIGURES

- | | | |
|-----------------|---|------------------------------|
| <i>1</i> | <i>Site Location Map</i> | <i>following text</i> |
| <i>2</i> | <i>Site Detail Map</i> | |
| <i>3</i> | <i>Indoor Air and Ambient Air Sample Locations</i> | |

LIST OF TABLES

- | | | |
|-----------------|--|---------------------------------|
| <i>1</i> | <i>Previous Site Sample Results</i> | <i>following figures</i> |
| <i>2</i> | <i>Indoor Air and Ambient Air Sample Locations</i> | |
| <i>3</i> | <i>Volatile Organic Compounds Detected in Indoor Air</i> | |
| <i>4</i> | <i>Comparison of Samples Collected at Ground Penetrations for Sprinkler Systems</i> | |

APPENDIX A – PREVIOUS INDOOR AIR SAMPLING DOCUMENTATION

APPENDIX B – CANISTER MEDIA CERTIFICATION REPORTS

APPENDIX C – INDOOR AIR SAMPLING FORM - SUMMA CANISTERS

APPENDIX D – SAMPLE LOCATION PHOTO LOG

APPENDIX E – LABORATORY ANALYTICAL REPORTS

APPENDIX F – WEATHER DATA

APPENDIX G – DATA QUALITY REVIEW MEMO

LIST OF ACRONYMS

µg/m ³	Micrograms per cubic meter
1,1,1-TCA	1,1,1-Trichloroethane
Air Toxics	Eurofins Air Toxics, Inc.
Cleanup Order	Final Site Cleanup Order No. 90-119
COC	Constituent of concern
DCA	Dichloroethane
DCE	Dichloroethene
ENVIRON	ENVIRON International Corporation
ERM	ERM-West, Inc.
HVAC	Heating, ventilation, and air conditioning
in. Hg	Inches of mercury
NP	Not published
PCE	Tetrachloroethene
PID	Photoionization detector
ppbv	Parts-per-billion by volume
QA/QC	Quality assurance/quality control
RWQCB	California Regional Water Quality Control Board, San Francisco Bay Region
SMI	SMI Holding, LLC
TCE	Trichloroethene
USEPA	United States Environmental Protection Agency
VOC	Volatile organic compound

EXECUTIVE SUMMARY

On behalf of SMI Holding LLC (SMI), ERM-West, Inc. (ERM) has prepared this *Report of Results – Potential Vapor Intrusion Evaluation at Former Siemens Facility* for the Intersil/Siemens Superfund Site in Cupertino, California (Figure 1). This report summarizes the results of indoor and outdoor air samples collected to evaluate the potential for volatile organic compounds in groundwater beneath the site to impact indoor air quality within the former Siemens facility.

In a letter dated 11 December 2013, the San Francisco Bay Regional Water Quality Control Board (RWQCB) and United States Environmental Protection Agency (USEPA) requested additional vapor intrusion studies to be conducted at the buildings located at the former Siemens facility to evaluate the following items:

- Commercial indoor air sampling with the heating, ventilation, and air conditioning (HVAC) system turned off; and
- Comparison of indoor air sampling results to the trichloroethene (TCE) short-term removal action levels and USEPA's updated long-term TCE screening levels.

In response to this request, SMI submitted *Revised Third Addendum to Work Plan to Evaluate Potential Vapor Intrusion* (Third Addendum Work Plan) on 14 February 2014. Sampling was conducted in February 2014 in accordance with the Third Addendum Work Plan, which was approved by the RWQCB and USEPA on 14 February 2014. This report documents the results of the February 2014 sampling.

The former Siemens facility consists of two, two-story buildings constructed on a common concrete slab. The first floors of the buildings are connected and the second floors are physically separated.

The constituents of concern (COCs) for vapor intrusion at the site include: 1,1-dichloroethane; 1,1-dichloroethene (DCE); cis-1,2-DCE; trans-1,2-DCE; Freon 113; 1,1,1-trichloroethane; TCE; toluene; tetrachloroethene; and vinyl chloride. The analytical data were evaluated using a tiered approach, as defined below:

- Tier 1: Indoor air sample results were compared to outdoor air concentrations to evaluate whether indoor air quality may be affected by ambient sources.

- Tier 2: Indoor air sample results were compared to short-term health-risk-based screening criteria, including method reporting limits or Interim Short-Term Response Action Levels for TCE provided by USEPA.
- Tier 3: Indoor air sample results were compared to long-term health-risk-based screening criteria Regional Screening Levels.

Four previous vapor intrusion evaluations have been completed at the former Siemens facility. The results from sampling in August 2000 and August 2002 indicated nondetect levels of the COCs for the site. The November 2002 and March 2007 sampling events reported no compounds above their respective Tier 2 or Tier 3 screening levels.

In February 2014, ERM collected 23 indoor air and two ambient outdoor air samples with the HVAC system shut down. No compounds were detected above their respective Tier 2 or Tier 3 screening levels.

Results from indoor air sampling conducted in 2002, 2007, and 2014 consistently report no COC detections in excess of Tier 2 or Tier 3 screening levels. These data confirm there is no unacceptable risk to indoor workers associated with COCs reported in subsurface soil or groundwater. For these reasons, no further vapor intrusion assessment is recommended at the former Siemens facility.

On behalf of SMI Holding LLC (SMI), ERM-West, Inc. (ERM) has prepared this *Report of Results – Potential Vapor Intrusion Evaluation at Former Siemens Facility* for the Intersil/Siemens Superfund Site in Cupertino, California (Figure 1). This report summarizes the results of indoor and outdoor air samples collected to evaluate the potential for volatile organic compounds (VOCs) in groundwater beneath the site to impact indoor air quality within the former Siemens facility. This sampling was conducted consistent with the 14 February 2014 California Regional Water Quality Control Board, San Francisco Bay Region (RWQCB) and the United States Environmental Protection Agency (USEPA) approved *Revised Third Addendum to Work Plan to Evaluate Potential Vapor Intrusion* (Third Addendum Work Plan; ERM, 2014).

Section 2 of this report provides a brief background on the site and describes and summarizes the results of indoor air sampling activities conducted in 2002 and 2007. Section 3 of this report describes the February 2014 sampling event and summarizes the results procedures and results. Section 4 provides a conclusions and recommendations based on the reported results.

2.0

BACKGROUND

Groundwater investigations at the former Siemens facility began in 1983. Investigations results identified trichloroethene (TCE) in groundwater as the primary constituent of concern (COC) at the site. The former Siemens facility is being remediated under the August 1990 RWQCB Final Site Cleanup Order No. 90-119 (Cleanup Order). Detailed descriptions of the historical remedial activities at the site are summarized in the Five-Year Status Reports (Geomatrix and LFR, 1995, 2000, and 2005; AMEC and LFR, 2009).

In a letter dated 11 December 2013 (RWQCB, 2013), the RWQCB and USEPA requested additional vapor intrusion studies to be conducted at the buildings located at the former Siemens facility to evaluate the following items:

- Commercial indoor air sampling with the heating, ventilation, and air conditioning (HVAC) system turned off; and
- Comparison of indoor air sampling results to the TCE short-term removal action levels and USEPA's updated long-term TCE screening levels.

This report documents the results of the sampling conducted in February 2014 in response to the 11 December 2013 letter.

2.1

CONSTITUENTS OF CONCERN AND SCREENING CRITERIA

The COCs for this investigation are the same as those for the 12 February 2012 *Work Plan to Evaluate Potential Vapor Intrusion, Intersil/Siemens Site, Indoor Air Study Area* (AMEC Geomatrix, Inc., 2012) (chemicals specified with remediation goals in the Cleanup Order) and any additional VOCs detected in grab groundwater sampling collected from A1 depth interval in the Off-Site Study Area. The COCs for the indoor air evaluation are:

- | | |
|----------------------------|-------------------------------------|
| • 1,1-dichloroethane (DCA) | • 1,1,1-trichloroethane (1,1,1-TCA) |
| • 1,1-dichloroethene (DCE) | • TCE |
| • cis-1,2-DCE | • Toluene |
| • trans-1,2-DCE | • Tetrachloroethene (PCE) |
| • Freon 113 | • Vinyl chloride |

In addition, chloroform was included at the request of USEPA to evaluate whether chemicals detected in indoor air may be present but unrelated to subsurface sources.

The selection of screening criteria for evaluation of the analytical data collected in this investigation is presented in the Third Addendum Work Plan. The analytical data were evaluated using a tiered approach, as defined below:

- Tier 1: Indoor air sample results were compared to outdoor air concentrations to evaluate whether indoor air quality may be affected by ambient sources.
- Tier 2: Indoor air sample results were compared to short-term health-risk-based screening criteria, including method reporting limits or Interim Short-Term Response Action Levels for TCE provided by USEPA.
- Tier 3: Indoor air sample results were compared to long-term health-risk-based screening criteria Regional Screening Levels.

The screening criteria selected for the Tier 2 and Tier 3 screening level assessments for the former Siemens facility are presented on Tables 1 and 3, respectively.

2.2 *FORMER SIEMENS FACILITY*

The former Siemens facility consists of two, two-story buildings constructed on a common concrete slab. The northern building faces Homestead Road (19000 Homestead Road, 49,550 square feet) and the southern building faces North Tantau Avenue (10950 North Tantau Avenue, 52,230 square feet); both buildings were constructed in approximately 1968 (Figure 2). The first floors of the buildings are connected and the second floors are physically separated. The combined structures operate under five different HVAC zones.

Kaiser Permanente, the current site tenant, provides a number of outpatient health-care services, including a mind-body wellness center, chemical dependency clinic, child and adolescent psychiatry unit, and adult psychiatry unit.

PREVIOUS VAPOR INTRUSION INVESTIGATIONS

Four previous vapor intrusion evaluations have been completed at the former Siemens facility, including:

- August 2000 – Clayton Group Services, Inc., performed an indoor air quality evaluation.
- August 2002 – ATC Associates, Inc., performed an indoor air quality investigation and risk assessment.
- November 2002 – ENVIRON International Corporation (ENVIRON) conducted an indoor air quality assessment and site visit.
- March 2007 - ENVIRON conducted an indoor air quality assessment.

Limited details regarding the investigation and results for the August 2000 and August 2002 sample events are available. The following summary is provided within the *Third Five-Year Review, Intersil/Siemens Superfund Site, Cupertino, Santa Clara County, California* (RWQCB, 2005):

Because there is a building located at the former Siemens facility used for commercial purposes, two indoor air sampling events were conducted in August 2000 and 2002. The results of these samples indicated non-detectable levels of the VOCs of concern. Because the SVE system did not operate during daytime office hours, it should be noted that the samples were collected when the SVE system was turned off but not after the SVE system had been shut down for a substantial period. At that time, the consultant concluded that there were no risks to public health based on that data. However, the reporting limits for TCE and vinyl chloride were higher than the recently revised February 2005 Environmental Screening Levels (ESLs) for indoor vapor intrusion. Additional indoor air sampling is planned when the existing SVE system has been shut down long enough to allow equilibrium to be re-established in the vadose zone. Siemens does not plan to dismantle the SVE system until potential indoor vapor intrusion issues have been addressed.

The November 2002 sample event is summarized within the report entitled: *Indoor Air Quality Letter Report* (ENVIRON, 2003) (Appendix A). Six indoor air and one outdoor samples were collected using Summa canisters with 6-hour flow controllers. These samples were collected on a Monday following a weekend when the HVAC activity was reduced for weekend conservation (i.e., HVAC activity on the weekend is 3 hours per day). The indoor air samples were collected on the first floor in areas where floor penetrations and/or cracks were observed.

The March 2007 sample event was also performed by ENVIRON. A copy of the analytical tables and sample location photographs for the March 2007 event are included in Appendix A. Six indoor air and one outdoor samples were collected. Based on review of the sample location photographs, it appears that the March 2007 samples were also collected on the first floor in areas where floor penetrations and/or cracks were observed.

The results of the November 2002 and March 2007 indoor and outdoor air sample results are presented on Table 1 and a summary of the maximum results for detected COCs and a comparison of these concentrations to the respective Tier 1, Tier 2, and Tier 3 screening levels is provided below:

Sample ID	Sample Date	COC	Maximum Concentration	Tier 1 Screening Level	Tier 2 Screening Level	Tier 3 Screening Level
2A	11/25/02	Freon 113	2.2	<1.4	NP	130,000
6A	3/14/07	1,1,1-TCA	1.3	<0.14	3,800	22,000
3A	3/14/07	TCE	0.56	0.19	7.0	3.0
7A	11/25/02	Toluene	5.5	2.5	3,800	22,000
4A	3/14/07	PCE	1.1	0.16	1,400	2.0

Notes:

Results are in micrograms per cubic meter ($\mu\text{g}/\text{m}^3$).

NP = not published

The following observations have been made for the 2002 and 2007 indoor air sampling results:

- The only detected COCs were Freon 113; 1,1,1-TCA; TCE; toluene; and PCE. Each of these compounds was detected at a higher concentration than the associated outdoor air sample collected (Tier 1 screening criteria). None of these compounds was detected above its respective Tier 2 or Tier 3 screening level.
- COCs 1,1-DCA; 1,1-DCE; cis-1,2-DCE; trans-1,2-DCE; and vinyl chloride were not detected above the respective method reporting limits during either the 2002 or 2007 indoor air sampling events.
- As seen on Table 1, chloroform was detected at all of the 2007 sample event locations with a maximum concentration of $0.34 \mu\text{g}/\text{m}^3$. Chloroform is not considered a COC for this site.
- The 2002 and 2007 samples were analyzed for the full suite of VOCs using Test Method TO-15. Other VOCs detected in indoor air include

acetone; benzene; n-butyl acetate; carbon tetrachloride;
1,4-dichlorobenzene; dichloromethane; ethylbenzene; Freon 11;
2-hexanone; isopropyl alcohol; m,p-xylenes; 4-methyl-2-pentanone;
o-xylene; styrene; 1,2,4-trimethylbenzene; and vinyl acetate; however,
none of these compounds is a COC for the former Siemens facility .

3.0

2014 SAMPLING EVENT

This section describes the field sampling activities, including pre-sampling activities, sample locations, sampling activities, and analytical results of indoor and outdoor air samples collected during the February 2014 indoor air sampling event at the former Siemens facility.

3.1

PRE-SAMPLING ACTIVITIES

Prior to conducting sampling at the former Siemens facility, SMI obtained permission for access from both the owner (MOF II Tantau Holdings, Inc) and their tenant, Kaiser. To better understand potential indoor exposures, ERM requested information from the tenant regarding the operational parameters of the HVAC units, the building plans and foundation design, and activities of building workers. ERM has received information indicating that the building has five different HVAC zones. The tenant has not however been able to provide a map that identifies the zones, which HVAC unit services each zone, or responses to other requests.

On 11 February 2014, representatives from ERM, USEPA and Kaiser conducted a building survey. During the site walk, representatives determined that the building foundation construction is most likely slab-on-grade (i.e., there is no basement or crawl space) and there are no sumps. The buildings are two stories with two elevators connecting the two floors, in addition to several staircases. Floor drains are present in the restrooms and showers. During the site inspection and the sampling, ERM identified general cleaning chemicals in use and/or stored at the site, including Sheila Shine, a cleaning supply containing PCE and xylene (located at sample location IA6)ⁱ. Additionally, Kaiser informed ERM and the USEPA that the server room (identified as location IA14 in Figure 3) is on a separate HVAC system that was required to stay on during the sampling.

The building survey included a pre-sampling site inspection and a real-time low-VOC concentration screening (i.e., parts-per-billion by volume

ⁱ During the building survey the building manager requested site maintenance to remove the cleaning supply containing PCE. ERM confirmed with the building manager that this was completed on 13 February; however, the bottle was still present at sample location IA6 during the 16-17 February 2014 sampling event.

[ppbv]) for potential VOC source preferential pathways such as ground penetrations, drains, floor cracks, and electrical outlets. The device used for this screening was a photoionization detector (PID) monitoring capable of detecting total VOCs at concentrations less than 10 ppbv.

With one exception, all PID field screen monitoring within the buildings yielded no detectable concentrations of VOCs. One location, a restroom identified as room number 1033, had a reading 4.0 parts per million. USEPA and ERM representatives agreed that this reading was likely associated with aerosol air refresher, which had been sprayed within the room just prior to surveying this location, and the PID reading was not indicative of a subsurface VOC source impacting indoor air.

3.2 *INDOOR AND AMBIENT OUTDOOR AIR SAMPLING LOCATIONS*

During the 11 February 2014 pre-sampling inspection and subsequent correspondence, the USEPA and ERM inspectors identified 23 representative indoor air sample locations and two representative outdoor air sample locations. Figure 3 illustrates the locations of the selected sample locations and Table 2 presents a description of each.

Selection criteria for sample locations included identification of preferential pathways and areas of regular worker exposure (e.g., office areas). In addition, the elevation of the sample interval was taken into consideration in the selection process. For sample locations selected to monitor human breathing zone, the target sample interval was set at 3 to 5 feet above ground surface. The target interval of 1 foot above ground surface was selected for locations chosen to monitor preferential pathways such as slab cracks and penetrations (Table 2 and Figure 3). Selection criteria for ambient outdoor air sample locations was based on areas that were not in the immediate vicinity of features, such as buildings, trees, or walls that may act as a wind shield and prevent the collection of a sample of outdoor air, to ensure the ambient outdoor air sample is representative of the general area.

3.3 *INDOOR AND AMBIENT AIR SAMPLING ACTIVITIES*

Between 16 and 17 February 2014, ERM collected 22 first-floor and one second-floor primary indoor air samples and three field duplicate indoor air samples at the former Siemens facility (Figure 3). In addition, two ambient outdoor air samples were also collected, both at ground level; one

near the southeastern corner of the buildings and the other mid-buildings on the east side of the building (in an approximately upwind direction).

3.4 *HEATING, VENTILATION, AND AIR CONDITIONING SUSPENSION*

As discussed above, ERM understands that the former Siemens facility operates under five different HVAC zones. For this sampling effort, Kaiser vacated the buildings between 11:30 p.m. on Friday, 14 February, and 2:00 p.m. Monday, 17 February 2014. Within this window, the sampling schedule was as follows:

- 14 February 2014 at 12:00 a.m. to 16 February 2014 at 12:00 p.m. - Minimum 36-hour period following HVAC unit shut down prior to sample collection;
- 16 February 2014 - ERM initiated indoor and outdoor air sample collection after 12:00 p.m.; and
- 17 February 2014 - Completed 24-hour sampling.

3.5 *FIELD METHODOLOGY*

The fieldwork was conducted by trained ERM personnel. The samples were collected in 6-liter stainless-steel Summa™ canisters (canisters), fitted with designated, laboratory-supplied and individually certified clean 24-hour flow controllers. The canister media certification reports are presented in Appendix B. ERM conducted the indoor and outdoor air sampling using the following methodology:

- Following receipt of the canisters from the laboratory, ERM confirmed that there were no leaks in the Summa canisters between the laboratory and receipt at ERM's office. ERM removed the brass caps from each canister and threaded a laboratory-provided analog pressure gauge onto the valve. The canister valves were opened to confirm that initial vacuums in each canister were -28 inches of mercury (in. Hg) or greater. Once the vacuum was confirmed, the canister valves were closed and brass caps were threaded back onto the canister valve.
- At the site, ERM performed a "shut-in test" to confirm there were no leaks in the fittings. ERM removed the brass caps and then threaded on the laboratory-supplied flow controllers and laboratory-provided analog pressure gauge onto the valve and threaded the brass cap onto the inlet of the flow controller. The canister valves were opened briefly

and then closed. The vacuum was monitored for several minutes to confirm that it was stable. If the vacuum was not stable, the fittings were tightened and the test was performed again.

- Following the “shut-in test,” ERM personnel placed the canisters in their designated locations (Figure 3) within and outside the buildings. Samples representative of the breathing zone were placed on desks and/or other features such that the intake was at a level of approximately 3 to 5 feet above floor. Preferential pathway samples were placed on the floor and adjacent to the potential pathway being evaluated. Outdoor air samples were placed at breathing zone.
- On 16 February, each canister valve was then opened to allow sampling to commence, starting with the outdoor air samples (minimum of 1 hour prior to starting indoor air samples). Approximately 30 minutes to 1 hour after commencing sampling, the canisters were checked to ensure that they were operating properly by confirming that the vacuum in each canister had dropped from its initial reading.
- On 17 February, after approximately 24 hours of sample collection time, the canister valves were closed, the laboratory-provided flow controllers were removed, and a laboratory-provided analog pressure gauge was threaded onto each valve to confirm final canister vacuum. Following the vacuum check, the vacuum data were recorded on the field forms, the pressure gauges were removed, and the brass caps were threaded on the canister valves to prevent leakage during transit to the laboratory. Following sample collection, the range of final vacuum observed ranged from 0 to -9.5 in. Hg. The canisters and flow controllers were then packed into cardboard boxes for shipment to Eurofins Air Toxics, Inc. (Air Toxics) for chemical analysis.

The Air Sampling Form was completed during the sampling and includes basic project information; sampling information (including sample IDs, sample times, canister and flow controller IDs, and beginning and ending vacuums); and weather information. A copy of the Indoor Air Sampling Form—Summa Canisters is included in Appendix C. Digital photographs were taken at each sample collection area and a photo-log of the indoor and ambient outdoor air sample locations is provided as Appendix D.

3.6 *LABORATORY ANALYSIS*

All samples were analyzed by Air Toxics by USEPA Method TO-15 with selective ion monitoring for the COCs and chloroform as defined in the Work Plan. Laboratory analytical reports are presented in Appendix E.

3.7 *METEOROLOGICAL DATA*

Meteorological data for this investigation were obtained from the Moffett Field Meteorological Station, located in Moffett Field, near Mountain View, California (Appendix F). Data collected for the sampling period included maximum and minimum temperatures, precipitation accumulation, and a summary of hourly wind speed and direction. The meteorological data were cross-checked with field observations documented in the field sampling logs, and the published data matched ERM field observations.

3.8 *ANALYTICAL RESULTS*

As seen on Table 3 and summarized below, the detected maximum COC concentrations from the February 2014 sampling event are compared to the respective Tier 1, Tier 2, and Tier 3 screening levels:

Sample Location	COC	Maximum Concentration	Tier 1 Screening Level	Tier 2 Screening Level	Tier 3 Screening Level
IA13	1,1-DCE	1.2	<0.058	79	880
IA14	Freon 113	3.1	<1.1	NP	130,000
IA13	1,1,1-TCA	11	<0.16	3,800	22,000
IA12	TCE	0.64	<0.16	7.0	3.0
IA11 & IA18	Toluene	2.0	1.1	3,800	22,000
IA6	PCE	1.1	<0.2	1,400	2.0
IA13	Vinyl chloride	0.058	<0.037	77	2.8

Notes:

Results are in $\mu\text{g}/\text{m}^3$.

NP = not published

The following observations have been made comparing analytical results for the indoor and outdoor air samples collected at the former Siemens

facility in February 2014 with respect to the Tier 1, Tier 2, and Tier 3 screening levels:

- The detected COCs include: 1,1-DCE; Freon 113; 1,1,1-TCA; TCE; toluene; PCE; and vinyl chloride. Each of these compounds was detected at a higher concentration than the respective outdoor air sample collected (Tier 1 screening criteria). None of these compounds were detected above their respective Tier 2 or Tier 3 screening levels.
- COCs 1,1-DCA; cis-1,2-DCE; and trans-1,2-DCE were not detected above the respective method reporting limits.
- As seen on Table 1, chloroform was detected in three sample locations with a maximum concentration of 4.7 µg/m³ at location IA06. This location also had the maximum detection of PCE. This sample location is the chemical storage room, which included the cleaning supply with PCE.

Because no VOCs were detected above the Tier 2 and 3 screening criteria, sub-slab sampling is not considered necessary.

Based on review of the sample location photographs, ERM determined that two locations with slab penetrations for the sprinkler systems were monitored during the 2002, 2007 and 2014 sample events. These two locations are identified as IA9 and IA12 in the most recent sample event. The detected compounds included chloroform, 1,1-DCE, Freon 113, 1,1,1-TCA, TCE, Toluene, and PCE; all detected one to five orders of magnitude below their respective Tier 2 and Tier 3 screening criteria (Table 4). In addition, the sample results for these multiple events are comparable. For example, the detected concentrations for TCE ranged from 0.56 µg/m³ to 0.64 µg/m³.

3.9

QUALITY ASSURANCE/QUALITY CONTROL EVALUATION

The purpose of the quality assurance/quality control (QA/QC) procedures is to assess the quality of the data by evaluating field equipment cleaning procedures, and the accuracy, precision, and completeness of the data. QA/QC procedures were described in the *Quality Assurance Project Plan* submitted with the Work Plan. ERM reviewed analytical data consistent with USEPA *Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review* (USEPA, 2008).

The field QA/QC samples included three field duplicate samples collected simultaneously with each corresponding primary sample using a T-splitter. In addition, Air Toxics analyzed surrogate spike samples, method blank samples, laboratory control samples, and laboratory control sample duplicates, and performed continuous calibration verification to provide internal quality control.

The Quality Assurance Officer reviewed the data and confirmed that the QA/QC procedures outlined in the Work Plan were met. The data generated meet all data quality objectives specified in the *Quality Assurance Project Plan* and considered complete. The complete data quality review is included in Appendix G.

The concentrations in indoor and outdoor air during 2002, 2007, and 2014 are comparable, and no VOCs were detected above Tier 2 (short-term) or Tier 3 (long-term) screening criteria during any sampling event.

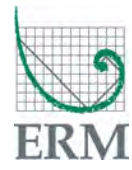
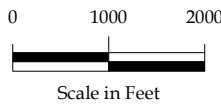
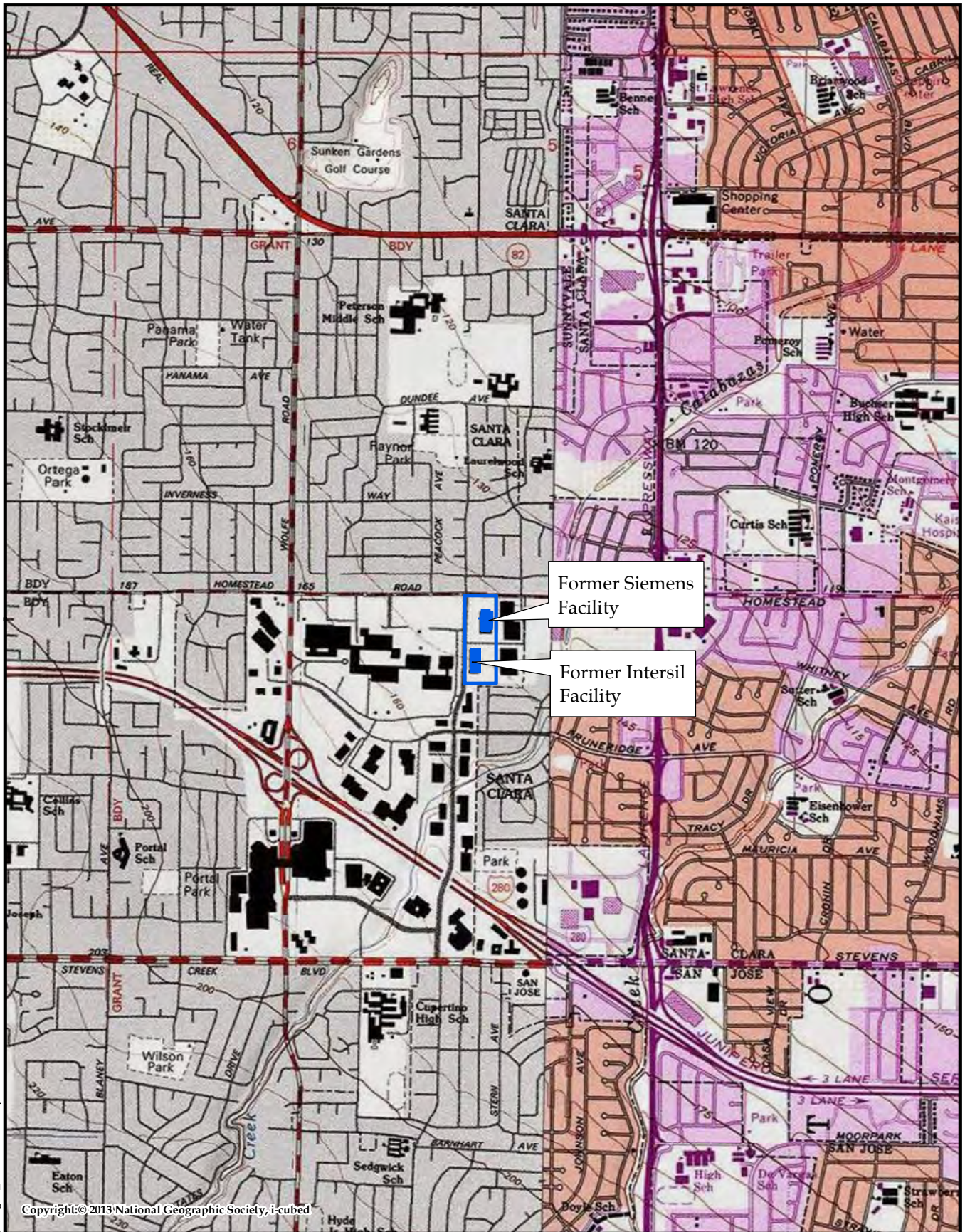
TCE and cis-1,2-DCE are the main COCs detected in groundwater beneath the site. There were no detections of cis-1,2-DCE in indoor air. TCE was detected above the screening level in 15 locations in February 2014, however all detections were below Tier 2 (short-term) or Tier 3 (long-term) screening criteria and pose a low threat to human health and the environment.

Results from indoor air sampling conducted in 2002, 2007, and 2014 consistently report no COC detections in excess of Tier 2 or Tier 3 screening levels. These data confirm there is no unacceptable risk to indoor workers associated with COCs reported in subsurface soil or groundwater. For these reasons, no further vapor intrusion assessment is recommended at the former Siemens facility.

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Figures

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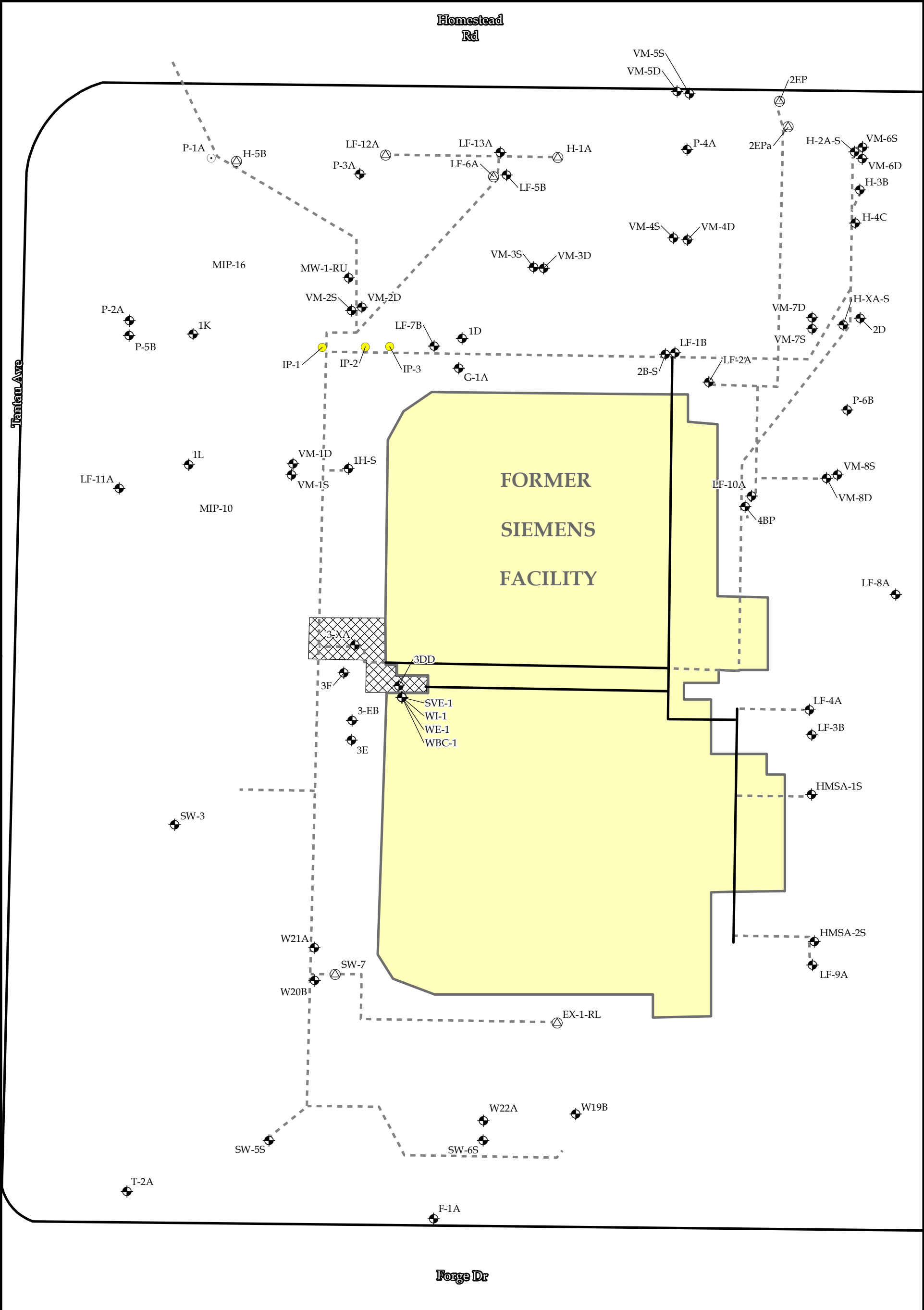


Intersil/Siemens Site
Cupertino, California

FIGURE 1
SITE LOCATION MAP

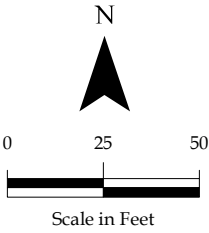
PREPARED BY:
aroe (ERM)

JOB NO. 01201040
FILE: Fig01_SiteLocationMap



- Legend**
- | | | | |
|--|-----------------------------|--|---|
| | Groundwater Extraction Well | | Groundwater Remediation Facility |
| | Injection Point | | Approximate Location of Aboveground Utility |
| | Monitoring Well | | Approximate Location of Underground Utility |
| | Piezometer | | City Block |
| | Existing Buildings | | |

Source: ARCADIS, Former Siemens Facility
2006 Annual Report: Figure 3 (dated 1/7/2010).



Intersil/Siemens Site
Cupertino, California

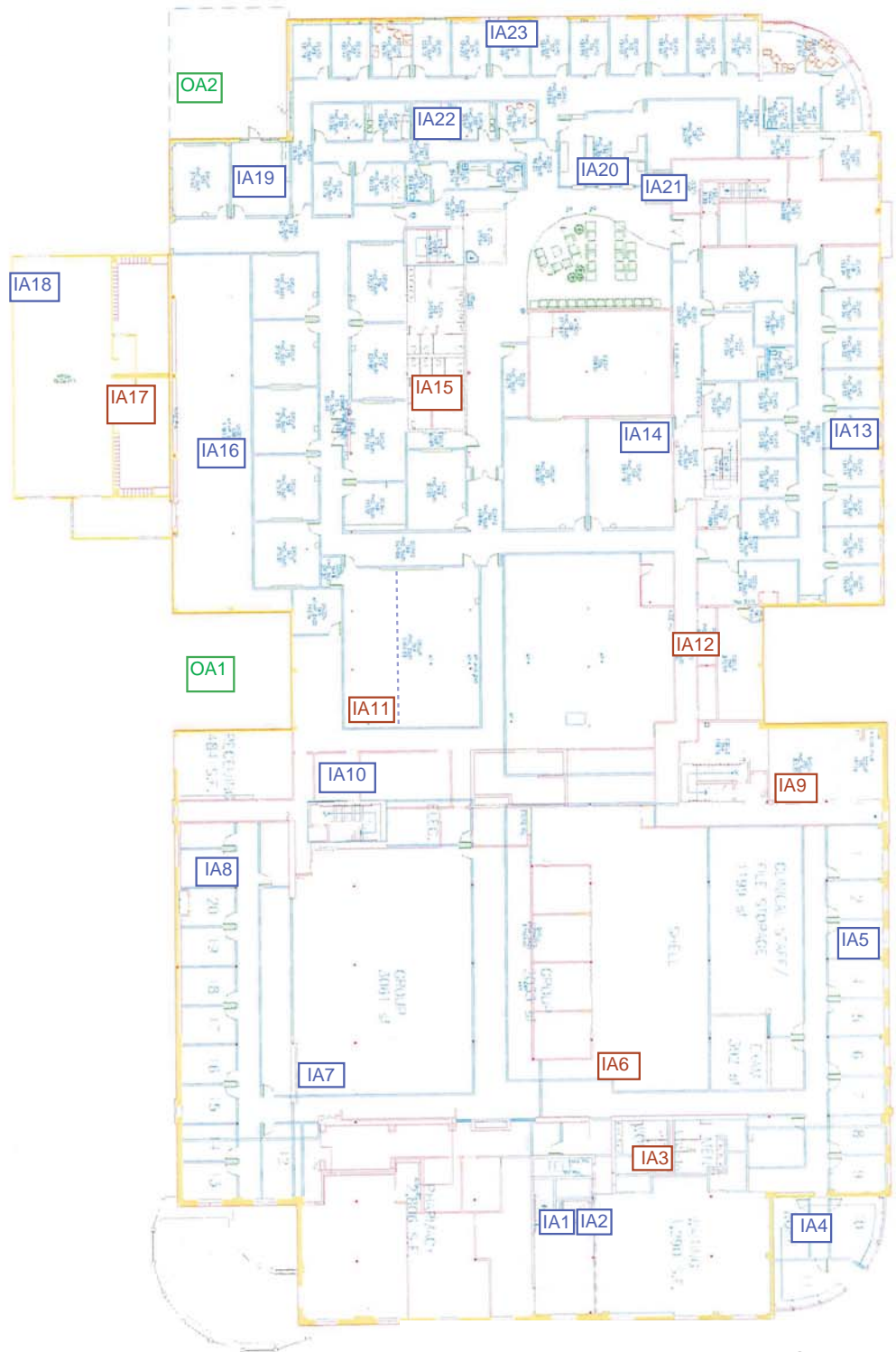
FIGURE 2
SITE DETAIL MAP



PREPARED BY:
Jorge Acevedo

JOB NO. 0201040.04SB
FILE: SMI_01

Tantau Avenue



Legend

- IA1 Breathing Zone Sample Location
- IA3 Floor Zone Sample Location
- OA1 Ambient Air Zone Sample Location

Homestead Road

Figure 3
Indoor and Ambient Air Sample Locations
Former Siemens and Intersil Facilities
Cupertino, California

Tables

Table 1
Previous Site Sample Results
Intersil/Siemens Site, Indoor Air Study Area
Cupertino, California

Sample ID	Location ID	Sample Type	Date	Chloroform	1,1-DCA	1,1-DCE	cis-1,2-DCE	trans-1,2-DCE	Freon 113	1,1,1-TCA	TCE	Toluene	PCE	Vinyl Chloride
2A	10950 Tantau Electrical Room in Lobby - Southwest Side	Indoor Air - Floor - 6-Hour Integrated	11/25/2002	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	2.2	< 1.3	< 1.3	3.1	< 1.3	< 1.3
3A	10950 - Tantau Shipping/Receiving Area - East Side	Indoor Air - Floor - 6-Hour Integrated	11/25/2002	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	3.6	< 1.6	< 1.6
4A	10950 Tantau - 19000 Homestead Fire Riser/Electrical Room - West Side	Indoor Air - Floor - 6-Hour Integrated	11/25/2002	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	1.8	< 1.4	< 1.4	3.8	< 1.4	< 1.4
5A	19000 Homestead - Electrical Room/Office Area - North Side	Indoor Air - Floor - 6-Hour Integrated	11/25/2002	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	4.6	< 1.4	< 1.4
6A	10950 - Tantau Hallway - South Side	Indoor Air - Floor - 6-Hour Integrated	11/25/2002	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	2.4	< 1.5	< 1.5
7A	19000 Homestead - Fire Riser Room - West Side	Indoor Air - Floor - 6-Hour Integrated	11/25/2002	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	5.5	< 1.5	< 1.5
1A	Building 19000 - Electrical Room (PG&E Equipment Room)	Indoor Air - Floor	3/14/2007	0.17	< 0.13	< 0.13	< 0.13	< 0.13	0.55	< 0.13	0.16	2.0	0.76	< 0.13
2A	Building 19000 - Shipping and Receiving Area	Indoor Air - Floor	3/14/2007	0.20	< 0.14	< 0.14	< 0.14	< 0.14	0.56	< 0.14	0.14	2.7	0.61	< 0.14
3A	Building 19000 - Security Room (Sprinkler Riser Location)	Indoor Air - Floor	3/14/2007	0.34	< 0.16	< 0.16	< 0.16	< 0.16	0.63	0.38	0.56	2.2	0.80	< 0.16
4A	Building 10950 - Electrical Room	Indoor Air - Floor	3/14/2007	0.22	< 0.13	< 0.13	< 0.13	< 0.13	0.69	0.65	0.33	2.4	1.1	< 0.13
5A	Building 10950 - Stairs Entrance	Indoor Air - Floor	3/14/2007	0.28	< 0.13	< 0.13	< 0.13	< 0.13	0.59	< 0.13	0.16	2.2	0.26	< 0.13
6A	Building 10950 - Elevator Equipment Room	Indoor Air - Floor	3/14/2007	0.25	< 0.13	< 0.13	< 0.13	< 0.13	1.3	1.3	0.28	2.4	0.68	< 0.13
Maximum Detected Concentration				0.34	ND	ND	ND	ND	2.2	1.3	0.56	5.5	1.1	ND
Tier 1 – Comparison to Background/Outdoor Ambient Air:														
1A	10950 Tantau Roof Top - Center Location (near the building HVAC intake)	Outdoor Air - 6-Hour Integrated	11/25/2002	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	2.5	< 1.4	< 1.4
7A	Building 19050 - Rooftop (HVAC Systems)	Outdoor Air	3/14/2007	0.33	< 0.14	< 0.14	< 0.14	< 0.14	0.58	< 0.14	0.19	1.7	0.16	< 0.14
Tier 2 – Comparison of Short-Term Health Based Screening Criteria:														
Acute Inhalation MRL ¹				NA	NP	NP	790 ²	790	NP	11,000	--	3,800	1,400	1,300
Intermediate Inhalation MRL ³				NA	NP	79	790 ²	790	NP	3,800	--	NP	NP	77
Interim Short-term Response Action Levels ⁴				--	--	--	--	--	--	--	7	--	--	--
Tier 3 – Comparison to Long-Term Health Based Screening Criteria:														
Commercial/Industrial Screening Level – Indoor Air ⁵				NA	7.7	880	260 ²	260	130,000	22,000	3	22,000	2 ⁶	2.8

Table 1
Previous Site Sample Results
Intersil/Siemens Site, Indoor Air Study Area
Cupertino, California

Sample ID	Date	Acetone	Benzene	n-Butyl Acetate	2-BUT	CCL	CM	1,4-DCB	DCM	EB	Freon 11	2-HEX	ISPA	m,p-XYL	4-M-2-P	o-XYL	STY	1,2,4-TCB	Vinyl Acetate
2A	12/25/2002	15	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	9.8	< 1.3	2.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3	< 1.3
3A	12/25/2002	7.7	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	5.1	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6
4A	12/25/2002	16	< 1.4	< 1.4	1.9	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	10	< 1.4	2.7	< 1.4	< 1.4	< 1.4	< 1.4	2.0	< 1.4
5A	12/25/2002	9.8	< 1.4	< 1.4	1.5	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	11	< 1.4	3.6	1.6	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4
6A	12/25/2002	13	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	9.3	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5
7A	12/25/2002	22	< 1.5	< 1.5	3.9	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5	9.9	< 1.5	6.5	1.5	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5
1A	3/14/2007	11 m	0.66	0.21	1.5	0.37	0.54	< 0.13	0.34	0.33	1.1	0.23	1.6	1.5	< 0.65	0.50	< 0.13	< 0.13	2.9 m
2A	3/14/2007	12	0.71	0.24	1.4	0.38	0.55	0.39	0.38	0.52	1.1	0.19	2.6	2.6	< 0.70	1.1	0.19	< 0.14	< 1.4
3A	3/14/2007	14	0.77	0.69	1.0	0.38	0.58	< 0.16	0.39	0.45	1.2	0.22	4.6	2.0	0.93	0.74	0.25	0.19	< 1.6
4A	3/14/2007	34	0.73	0.76	2.9	0.41	0.56	< 0.13	0.33	0.43	1.2	0.46	38	1.8	1.0	0.62	0.20	< 0.13	8.5 m
5A	3/14/2007	14	0.69	0.39	1.8	0.41	0.58	0.14	0.35	0.38	1.1	0.33	14	2.0	< 0.65	0.77	0.20	< 0.13	1.6
6A	3/14/2007	18	0.68	0.61	2.1	0.40	0.56	0.14	0.36	0.41	1.3	0.30	12	1.7	0.94	0.59	0.21	< 0.13	3.8
		34	0.77	0.76	3.9	0.41	0.58	0.39	0.39	0.52	11	0.46	38	2.6	1.0	1.1	0.25	2.0	8.5
1A	12/25/2002	6.1	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	1.6	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4	< 1.4
7A	3/14/2007	8.5	0.62	< 0.14	1.3	0.39	0.55	0.14	0.36	0.30	1.1	0.19	1.7	1.3	< 0.69	0.44	< 0.14	< 0.14	< 1.4
		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:

All concentrations are presented in micrograms per cubic meter (µg/m³).

Bolded values indicate compound was detected above method reporting limits.

1. MRLs for acute exposures (i.e., exposure durations of 1 to 14 days) for the inhalation pathway (ATSDR, 2011).
2. Value published for trans-1,2-DCE is used as a surrogate for cis-1,2-DCE.
3. MRLs for intermediate exposures (i.e., exposure durations of >14 to 365 days) for the inhalation pathway (ATSDR, 2011).
4. Interim Short-term Response Action Level specified by United States Environmental Protection Agency (EPA) Region 9 (EPA, 2013b). Value is based on a 10-hour workday and a hazard index of 1. Exceedance of this concentration levels triggers mitigation; exceedance of three times this concentration triggers an immediate response.
5. Regional Screening Levels (RSLs) for industrial air (EPA, 2013a). Lower of cancer or non-cancer values presented.
6. The current RSL for PCE of 47 µg/m³ reflects recent updates to PCE's toxicity criteria by EPA. However, California has not yet adopted these revised criteria. Therefore, the screening level for PCE is based on California toxicity criterion and EPA's methods for estimating exposure.

Abbreviations

2-BUT = 2-Butanone (MEK)	4-M-2-P = 4-Methyl-2-pentanone
CCL = Carbon tetrachloride	NA = Not applicable; chloroform is measured as an indicator of the connection between indoor air and sub-slab air and is not considered a chemical of concern for indoor air at this site.
CM = Chloromethane	
1,4-DCB = 1,4-Dichlorobenzene	ND = Not detected
DCM = Methylene chloride	NP = Not published
EB = Ethylbenzene	o-XYL = o-Xylene
Freon 11 = Trichlorofluoromethane	STY = Styrene
Freon 113 = 1,1,2-Trichloro-1,2,2-trifluoroethane	PCE = Tetrachloroethene
2-HEX = 2-Hexanone	TCE = Trichloroethene
ISPA = Isopropyl alcohol	1,2,4-TCB = 1,2,4-Trichlorobenzene
MRL = Minimal Risk Level	1,1,1-1CA = 1,1,1-Trichloroethene
m,p-XYL = m,p-Xylenes	

Laboratory Qualifiers

m = Matrix interference; results may be biased high.

References

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United States Environmental Protection Agency (EPA), Regions 3, 6, and 9, 2013a, Regional Screening Levels for Chemical Contaminants at Superfund Sites, November: <http://www.epa.gov/region9/superfund/prg>.
EPA, 2013b, Memorandum from Kathleen Salyer of the EPA to Stephen Hill, Chief, Toxic Cleanup Division, California. Regional Quality Control Board, 3 December.

Table 2
Indoor Air and Ambient Air Sample Locations
Intersil/Siemens Site, Indoor Air Study Area
Cupertino, California

Location ID	Sample Location Name	Room Number	Floor/Breathing Zone
Indoor Air			
IA1	First Floor Elevator Sample	Homestead Entrance	Breathing Zone
IA2	Second Floor Elevator Sample	Homestead Entrance	Breathing Zone
IA3	Woman's Restroom (Floor Drain)	NA	Floor
IA4	Common Room	Adjacent to 1036	Breathing Zone
IA5	Office Sample	1035	Breathing Zone
IA6	EVS Storage Room (Floor Drain)	1094	Floor
IA7	Cube Sample In Group Room C3	1073	Breathing Zone
IA8	Office Sample	1068	Breathing Zone
IA9	Ground Penetration for Building Sprinkler System	195	Floor
IA10	Staff Lounge Sample (Collect by Sink)	1090	Breathing Zone
IA11	Public Affairs Storage Room (Floor Cracks)	NA	Floor
IA12	Ground Penetration for Building Sprinkler System	179	Floor
IA13	Office Sample (Room 104)	104	Breathing Zone
IA14	Server Room	NA	Breathing Zone
IA15	Woman's Restroom Adjacent to Chemical Dependency Waiting Room (Floor Drain)	NA	Floor
IA16	On Desk outside of Room 138B	138B	Breathing Zone
IA17	Woman's Restroom Floor (Floor Drain)	NA	Floor
IA18	Storage Area by Bathroom	125	Breathing Zone
IA19	Patient Break Room	125	Breathing Zone
IA20	Chemical Dependence Reception Office	136	Breathing Zone
IA21	First Floor Elevator Shaft	Tantau Entrance	Breathing Zone
IA22	Break Room by AED Across from Room 129 (by Sink)	133	Breathing Zone
IA23	Office Sample	118	Breathing Zone
Ambient Air			
OA1	Outdoor Air Sample (by Boiler)	NA	Breathing Zone
OA2	Outdoor Air Sample outside Patient Break Room	NA	Breathing Zone

Notes:

NA - not available

Table 3
Volatile Organic Compounds Detected in Indoor Air
Intersil/Siemens Site, Indoor Air Study Area
Cupertino, California

Sample ID	Location ID	Sample Type	Date	Chloroform	1,1-DCA	1,1-DCE	cis-1,2-DCE	trans-1,2-DCE	Freon 113	1,1,1-TCA	TCE	Toluene	PCE	Vinyl Chloride
SMI-IA01-20140216	IA1	Indoor Air - Breathing Zone	2/17/2014	< 0.83	< 0.14	< 0.068	< 0.14	< 0.68	< 1.3	< 0.19	0.26	1.4	< 0.23	< 0.044
SMI-IA02-20140216	IA2	Indoor Air - Breathing Zone	2/17/2014	< 0.77	< 0.13	< 0.063	< 0.12	< 0.63	< 1.2	0.19	0.24	1.5	< 0.21	< 0.040
SMI-IA03-20140216	IA3	Indoor Air - Floor	2/17/2014	< 0.82	< 0.14	< 0.067	< 0.13	< 0.67	< 1.3	< 0.18	0.28	1.7	< 0.23	< 0.043
SMI-IA04-20140216	IA4	Indoor Air - Breathing Zone	2/17/2014	< 0.65	< 0.11	< 0.053	< 0.11	< 0.53	< 1.0	0.16	0.41	1.6	< 0.18	< 0.034
SMI-IA05-20140216	IA5	Indoor Air - Breathing Zone	2/17/2014	< 0.82	< 0.14	< 0.067	< 0.13	< 0.67	< 1.3	0.20	0.45	1.5	< 0.23	< 0.043
SMI-IA06-20140216	IA6	Indoor Air - Floor	2/17/2014	4.7	< 0.16	< 0.078	< 0.16	< 0.78	< 1.5	1.2	< 0.21	1.8	1.1	< 0.050
SMI-IA07-20140216	IA7	Indoor Air - Breathing Zone	2/17/2014	< 0.65	< 0.11	0.056	< 0.11	< 0.53	< 1.0	0.45	< 0.14	1.3	0.20	< 0.034
SMI-IA08-20140216	IA8	Indoor Air - Breathing Zone	2/17/2014	< 0.82	< 0.14	< 0.67	< 0.13	< 0.67	< 1.3	< 0.18	< 0.18	1.1	< 0.23	< 0.430
SMI-IA08D-20140216	IA8 Duplicate	Indoor Air - Breathing Zone	2/17/2014	< 0.79	< 0.13	< 0.064	< 0.13	< 0.64	< 1.2	< 0.18	< 0.17	1.1	< 0.22	< 0.041
SMI-IA09-20140216	IA9	Indoor Air - Floor	2/17/2014	< 0.80	< 0.13	< 0.065	< 0.13	< 0.65	< 1.2	0.50	0.63	1.5	< 0.22	< 0.042
SMI-IA09D-20140216	IA9 Duplicate	Indoor Air - Floor	2/17/2014	< 0.82	< 0.14	< 0.067	< 0.13	< 0.67	< 1.3	0.58	0.62	1.5	< 0.23	< 0.43
SMI-IA10-20140216	IA10	Indoor Air - Breathing Zone	2/17/2014	< 0.96	< 0.16	< 0.078	< 0.16	< 0.78	< 1.5	0.22	< 0.21	1.5	< 0.26	< 0.050
SMI-IA11-20140216	IA11	Indoor Air - Floor	2/17/2014	< 0.69	< 0.11	< 0.056	< 0.11	< 0.56	< 1.1	< 0.15	< 0.15	2.0	< 0.19	< 0.036
SMI-IA12-20140216	IA12	Indoor Air - Floor	2/17/2014	< 0.83	< 0.14	0.70	< 0.14	< 0.68	2.1	6.9	0.64	1.3	0.32	< 0.044
SMI-IA13-20140216	IA13	Indoor Air - Breathing Zone	2/17/2014	< 0.83	< 0.14	1.2	< 0.14	< 0.68	1.9	11	0.39	1.6	< 0.23	0.058
SMI-IA14-20140216	IA14	Indoor Air - Breathing Zone	2/17/2014	1.4	< 0.14	0.34	< 0.14	< 0.68	3.1	4.4	0.28	1.7	0.43	< 0.044
SMI-IA15-20140216	IA15	Indoor Air - Floor	2/17/2014	< 0.65	< 0.11	0.19	< 0.11	< 0.53	1.9	2.4	0.22	1.7	0.37	< 0.034
SMI-IA16-20140216	IA16	Indoor Air - Breathing Zone	2/17/2014	< 0.93	< 0.15	0.11	< 0.15	< 0.76	< 1.5	1.1	< 0.20	1.4	< 0.26	< 0.049
SMI-IA16D-20140216	IA16 Duplicate	Indoor Air - Breathing Zone	2/17/2014	< 0.83	< 0.14	0.11	< 0.14	< 0.68	1.3	1.3	0.20	1.5	0.26	< 0.044
SMI-IA17-20140216	IA17	Indoor Air - Floor	2/17/2014	1.8	< 0.13	0.088	< 0.13	< 0.65	1.2	1.2	0.27	1.5	0.28	< 0.042
SMI-IA18-20140216	IA18	Indoor Air - Breathing Zone	2/17/2014	< 0.85	< 0.14	0.070	< 0.14	< 0.69	< 1.3	0.94	0.24	2.0	< 0.24	< 0.045
SMI-IA19-20140216	IA19	Indoor Air - Breathing Zone	2/17/2014	< 0.80	< 0.13	0.12	< 0.13	< 0.65	< 1.2	1.2	< 0.18	1.3	< 0.22	< 0.042
SMI-IA20-20140216	IA20	Indoor Air - Breathing Zone	2/17/2014	< 0.74	< 0.12	0.16	< 0.12	< 0.60	1.5	1.6	0.17	1.6	0.23	< 0.039
SMI-IA21-20140216	IA21	Indoor Air - Breathing Zone	2/17/2014	< 0.82	< 0.14	0.15	< 0.13	< 0.67	< 1.3	1.5	0.18	1.4	< 0.23	< 0.043
SMI-IA22-20140216	IA22	Indoor Air - Breathing Zone	2/17/2014	< 0.87	< 0.14	0.12	< 0.14	< 0.71	2.8	2.0	< 0.19	1.7	< 0.24	< 0.046
SMI-IA23-20140216	IA23	Indoor Air - Breathing Zone	2/17/2014	< 0.82	< 0.14	0.095	< 0.13	< 0.67	1.6	1.2	< 0.18	1.7	< 0.23	< 0.043
Maximum Detected Concentration				4.7	ND	1.2	ND	ND	3.1	11	0.64	2.0	1.1	0.058
Tier 1 – Comparison to Background/Outdoor Ambient Air:														
SMI-OA1-20140216	OA1	Outdoor Air	2/17/2014	< 0.77	< 0.13	< 0.063	< 0.12	< 0.63	< 1.2	< 0.17	< 0.17	1.2	< 0.21	< 0.040
SMI-OA2-20140216	OA2	Outdoor Air	2/17/2014	< 0.71	< 0.12	< 0.058	< 0.12	< 0.58	< 1.1	< 0.16	< 0.16	1.1	< 0.2	< 0.037
Tier 2 – Comparison of Short-Term Health Based Screening Criteria:														
Acute Inhalation MRL ²				NA	NP	NP	790 ³	790	NP	11,000	--	3,800	1,400	1,300
Intermediate Inhalation MRL ⁴				NA	NP	79	790 ³	790	NP	3,800	--	NP	NP	77
Interim Short-term Response Action Levels ⁵				--	--	--	--	--	--	--	7	--	--	--
Tier 3 – Comparison to Long-Term Health Based Screening Criteria:														
Commercial/Industrial Screening Level – Indoor Air ⁶				NA	7.7	880	260 ³	260	130,000	22,000	3	22,000	2 ⁷	2.8

Table 3
Volatile Organic Compounds Detected in Indoor Air
Intersil/Siemens Site, Indoor Air Study Area
Cupertino, California

Notes:

All concentrations are presented in micrograms per cubic meter (µg/m³).

Bolded values indicate compound was detected above method reporting limits.

1. Indoor and outdoor/background ambient air samples collected by ERM into individually-certified 6-liter Summa™ canisters fitted with 24-hour flow-controllers and analyzed by Eurofins Air Toxics, Inc. of Folsom, California using EPA Method TO-15 in selective ion mode (SIM).
2. MRLs for acute exposures (i.e., exposure durations of 1 to 14 days) for the inhalation pathway (ATSDR, 2011).
3. Value published for trans-1,2-DCE is used as a surrogate for cis-1,2-DCE.
4. MRLs for intermediate exposures (i.e., exposure durations of >14 to 365 days) for the inhalation pathway (ATSDR, 2011).
5. Interim Short-term Response Action Level specified by United States Environmental Protection Agency (EPA) Region 9 (EPA, 2013b). Value is based on a 10-hour workday and a hazard index of 1. Exceedance of this concentration levels triggers mitigation;
6. Regional Screening Levels (RSLs) for industrial air (EPA, 2013a). Lower of cancer or non-cancer values presented.
7. The current RSL for PCE of 47 µg/m³ reflects recent updates to PCE's toxicity criteria by EPA. However, California has not yet adopted these revised criteria. Therefore, the screening level for PCE is based on California toxicity criterion and EPA's methods for estimating exposure.

Abbreviations

1,1-DCA = 1,1-Dichloroethane	NA = Not applicable; chloroform is measured as an indicator of the connection between indoor air
1,1-DCE = 1,1-Dichloroethene	and sub-slab air and is not considered a chemical of concern for indoor air at this site.
cis-1,2-DCE = cis-1,2-Dichloroethene	NP = Not published
trans-1,2-DCE = trans-1,2-Dichloroethene	TCE = Trichloroethene
Freon 113 = 1,1,2-Trichloro-1,2,2-trifluoroethane	PCE = Tetrachloroethene
MRL = Minimal Risk Level	1,1,1-TCA = 1,1,1-Trichloroethene

References

Agency for Toxic Substances & Disease Registry (ATSDR), 2013, Minimal Risk Levels (MRLs) for Hazardous Substances, July: <http://www.atsdr.cdc.gov/mrls/mrllist.asp>

United States Environmental Protection Agency (EPA), Regions 3, 6, and 9, 2013a, Regional Screening Levels for Chemical Contaminants at Superfund Sites, November: <http://www.epa.gov/region9/superfund/prg>.

EPA, 2013b, Memorandum from Kathleen Salyer of the EPA to Stephen Hill, Chief, Toxic Cleanup Division, California. Regional Quality Control Board, 3 December.

Table 4
Comparison of Samples Collected at Ground Penetrations for Sprinkler Systems
Intersil/Siemens Site, Indoor Air Study Area
Cupertino, California

Sample ID	Location ID	Sample Type	Date		Chloroform (µg/ m³)		1,1-DCA (µg/ m³)		1,1-DCE (µg/ m³)		cis-1,2-DCE (µg/ m³)		trans-1,2-DCE (µg/ m³)		Freon 113 (µg/ m³)		1,1,1-TCA (µg/ m³)		TCE (µg/ m³)		Toluene (µg/ m³)		PCE (µg/ m³)		Vinyl Chloride (µg/ m³)
10950 Tantau - Ground Penetration for Building Sprinkler System																									
7A	7A	Indoor Air - Floor - 6-Hour Integrated	11/25/2002	<	1.5	<	1.5	<	1.5	<	1.5	<	1.5	<	1.5	<	1.5	<	1.5		5.5	<	1.5	<	1.5
3A	3A	Indoor Air - Floor	3/14/2007		0.34	<	0.16	<	0.16	<	0.16		0.63		0.38		0.56		2.2		0.80	<	0.16		
SMI-IA09-20140216	IA9	Indoor Air - Floor	2/17/2014	<	0.80	<	0.13	<	0.065	<	0.13	<	0.65	<	1.2		0.50		0.63		1.5	<	0.22	<	0.042
SMI-IA09D-20140216	IA9 Duplicate	Indoor Air - Floor	2/17/2014	<	0.82	<	0.14	<	0.067	<	0.13	<	0.67	<	1.3		0.58		0.62		1.5	<	0.23	<	0.43
19000 Homestead - Ground Penetration for Building Sprinkler System																									
4A	4A	Indoor Air - Floor - 6-Hour Integrated	11/25/2002	<	1.4	<	1.4	<	1.4	<	1.4	<	1.4		1.8	<	1.4	<	1.4		3.8	<	1.4	<	1.4
SMI-IA12-20140216	IA12	Indoor Air - Floor	2/17/2014	<	0.83	<	0.14		0.70	<	0.14	<	0.68		2.1		6.9		0.64		1.3		0.32	<	0.044

Notes:
All concentrations are presented in micrograms per cubic meter (µg/ m³).
Bolded values indicate compound was detected above method reporting limits.

- Abbreviations
- 1,1-DCA = 1,1-Dichloroethane

1,1-DCE = 1,1-Dichloroethene

cis-1,2-DCE = cis-1,2-Dichloroethene

trans-1,2-DCE = trans-1,2-Dichloroethene
- Freon 113 = 1,1,2-Trichloro-1,2,2-trifluoroethane

1,1,1-TCA = 1,1,1-Trichloroethene

TCE = Trichloroethene

PCE = Tetrachloroethene

Appendix A
Previous Indoor Air
Sampling Documentation

January 7, 2003

Ms. Linda Simmons
Manager, Real Estate Group
Kaiser Foundation Health Plan, Inc.
1950 Franklin Street, 12th Floor
Oakland, California 94612

Ms. Helen Ku
Kaiser Foundation Health Plan, Inc.
Western Environmental, Health & Safety Service Hub
100 S. Los Robles, Suite 410
Pasadena, California 91188

Subject: Indoor Air Quality Letter Report
19000 Homestead Road and 10950 North Tantau Avenue, Cupertino, California

Dear Ms. Simmons and Ms. Ku:

At your request, ENVIRON International Corporation (ENVIRON) conducted an indoor air quality (IAQ) assessment and a site visit of the property located at 19000 Homestead Road and 10950 North Tantau Avenue, Cupertino, California, on November 25 and 26, 2002.

SUMMARY

ENVIRON's site visit and IAQ assessment are based on two previous IAQ investigations, which were conducted at the subject buildings by Clayton Group Services, Inc. (Clayton, 2000¹) and ATC Associates, Inc. (ATC, 2002²). The objectives for ENVIRON's site visit and IAQ assessment are as follows:

- Observe and photographically document the on-site groundwater and soil treatment systems (including the exhaust vents) and areas of potential vapor migration pathways (such as visible cracks in the concrete);

¹ Clayton, 2000. Indoor Air Quality Evaluation of Volatile Organic Compounds at 19000 Homestead Road and 10950 North Tantau Avenue, Cupertino, California, Clayton Group Services, Inc., August.

² ATC, 2002. Limited Indoor Air Quality Investigation, ATC Associates, Inc., August.

- Collect six air samples near the potential vapor migration pathways inside the two buildings and one sample outdoors as the background using the same method utilized by Clayton and ATC for comparison and confirmation purposes; and
- Collect one instantaneous air sample from the soil vapor extraction system's emission stack.

This letter report presents ENVIRON's observations during the site visit, the air sampling and analytical methods, and the results of the eight air samples collected. In summary, the indoor air concentrations within the two buildings indicated acceptable air quality and are not associated with the residual subsurface contaminants beneath the site.

BACKGROUND AND SITE VISIT

Description of Buildings

The buildings located at 19000 Homestead Road and 10950 North Tantau Avenue were constructed in approximately 1968. Each building is two stories high and constructed on a common concrete slab at grade where the first floor is a contiguous floor. The buildings' second floors are physically separated. The buildings are oriented north-south on the property where the northern building (19000 Homestead Road) and the southern building (10950 Tantau Avenue) have a total square footage of 49,550 square feet and 52,230 square feet, respectively.

At the time of ENVIRON's site visit, the current tenant, Jamcracker, was vacating the site. In some areas, the building was storing office computer equipment and furniture. Other office areas had standard office cubical configuration or were vacant. The first floors of both buildings were carpeted and the bathrooms had tile flooring. There was no evidence of floor cracks in these areas. The shipping and receiving area in the south-eastern portion of the Tantau building was concrete and had minor cracking (see Attachment A). There were no obvious odors present within the buildings.

There is a security guard on duty for the buildings 24 hours per day and 7 days per week. The guard is stationed at the Tantau Building lobby and performs routine inspections of the building interiors and grounds.

Description of On-Site Groundwater and Soil Treatment Systems

The subject buildings are located on the property that has been historically impacted by subsurface (both soil and groundwater) volatile organic compound (VOC) contamination. As a result, the property is part of a National Priority List site or Superfund site. The site is identified as the Intersil/Siemens site.

The groundwater and soil treatment systems are located on the exterior-western portion of the buildings where the two buildings join (see Attachment B). The treatment units were within a secured enclosure that was only accessible from the exterior of the buildings. The associated piping runs around the buildings to a network of groundwater wells.

Mr. Dale Rogers, an employee of Levine-Fricke, met with ENVIRON personnel on November 26, 2002. Mr. Rogers' responsibilities include maintenance and operation of the treatment systems. He provided a tour and related information to ENVIRON regarding the on-site treatment systems.

There are a total of three separate treatment units on the property, all of which are located within the secured enclosure. The first system is an air stripper unit, which is no longer operational. The air-stripper emission stack is located on the west side of the roof on building 10950 N. Tantau Avenue. The stack diameter is approximately 8 to 10 inches. The air stripper unit has been replaced by a carbon bed treatment system (second system). This system collects contaminated groundwater that flows through the carbon beds. The carbon beds remove the VOCs. The abated groundwater is discharged to the storm drain system under a NPDES permit. The third system is a soil-vapor extraction system. This system has a 35 cubic-feet-per-minute (cfm) blower, which pulls air through a network of pipes. It appears that the soil vapors are discharged directly into the atmosphere. The emission stack is adjacent to the abandoned air stripper stack. The stack diameter is approximately 3 to 4 inches. The soil vapor extraction system operation time is from 4 p.m. to 7 a.m. the following morning, seven days a week.

SAMPLING PARAMETERS

Building Ventilation

In order to simulate the worst-case indoor VOC concentrations, the sampling occurred on a Monday morning following a weekend when the heating, ventilation, and air-conditioning system (HVAC) activity was reduced for weekend conservation. The HVAC operated for three hours per day during the weekend as opposed to the 8 to 10 hours of regular weekday operation. The period of HVAC reduction is from Friday evening until Monday morning. Some HVAC activity is needed for the weekend since the buildings are occupied by a security guard 24 hours a day. The reduced HVAC activity allows for the build-up of VOC concentrations inside the buildings compared to the normal operating schedule. The HVAC systems utilize Freon 22 (chlorodifluoromethane).

Weather and Wind Direction

The local high temperature was 64 degrees F, with clear skies. The relative humidity was 28%. The early morning was calm with winds from the north-northwest at 22 mph, gusting to 29 mph.

Sampling Method, Locations and Times

A total of eight air samples were collected by ENVIRON, six of which were collected inside the two buildings and one collected outdoors as the ambient air background measurement. The indoor air sampling locations were limited to the first floor and to those areas that had floor penetrations and/or cracks such as fire riser rooms, electrical rooms and the shipping/receiving area. As stated earlier in this report, the first floor was contiguous between the two buildings. The ambient background sample was collected on the 10950 Tantau building rooftop in an area away from potential air emission sources. The seven air samples were collected over a 6-hour sampling period from approximately 7:40 a.m. to 2:20 p.m. on November 25, 2002. The eighth sample was collected from the soil-vapor extraction system. This final sample was a grab sample and was collected on November 26, 2002 at 11:15 a.m. when Levine-Fricke was present. Figures 1 and 2 show the sample locations.

The seven integrated air-samples were collected using Summa canisters with 6-hour flow controllers. The indoor Summa canisters were placed on the floor. The outdoor Summa canister was placed in the center of the 10950 Tantau building rooftop. The sample inlet height is about 24 inches. The grab sample was collected using a Summa canister that was connected to a sample port located within the exhaust line of the soil-vapor extraction system. Since the soil-vapor extraction system was not operating at that time, Mr. Rogers manually activated the system by turning on the blower. The system was allowed to purge for 5 to 10 minutes prior to collecting the grab sample. The location of the air samples with dates and times are provided in Table 1. Each sample location was also recorded using a digital camera (see Attachment A).

ANALYTICAL METHODS

Upon completion of the sampling, the Summa canisters were shipped overnight using Federal Express to Columbia Analytical Services, Inc., Simi Valley, California for analyses. ENVIRON's standard chain-of-custody procedures were followed. The air samples were then analyzed using EPA Method TO-15, which utilizes gas chromatograph /mass spectrometry (GC/MS). Isopropyl alcohol, 1, 2, 4-TCB, and n-butyl acetate were added to the laboratory's standard list of 43 analytes for Method TO-15 in order to capture the "marker" chemicals listed in Clayton's report (Clayton, 2000). The analytical reports, including the laboratory quality control samples, are provided in Attachment C.

RESULTS AND DISCUSSIONS

The analytical results for detected VOCs are presented in Tables 2 and 3. As shown in Table 2, the indoor concentrations are slightly higher than the outdoor concentrations, which is to be expected, and are all in the ppb or sub-ppb levels. In addition, the key marker chemicals trichloroethene (TCE) and 1,1,1-trichloroethane (1,1,1-TCA) were not detected in these samples. On the other hand,

Ms. Simmons and Ms. Ku

January 7, 2003

several marker chemicals were detected in the grab sample from the soil vapor extraction system stack (Table 3,) including TCE, 1,1,1-TCA, 1,1-dichloroethene, and cis-1,2-dichloroethene.

Based on the results presented in this letter report, there is no evidence suggesting that the indoor air quality in the two subject buildings is impacted by the residual contaminants located beneath the site.

After your review of this document, please feel free to contact Yi Tian at 949-798-3624 or Susan Wilson at 408-727-8554 if you have any questions or comments. We appreciate the opportunity of assisting you in this matter.

Very truly yours,

Susan Wilson
Senior Manager

Yi Tian, CIH, QEP
Manager

Michael Smylie
Principal

Attachments: Tables 1 and 2
Figures 1 and 2
Attachments A through C

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T A B L E S

Table 1. Summary of Air Sampling Locations, Dates, and Durations

Sample Number	Sample Type	Sample Date	Sample Time (Military Hours)	Sample Location
1A	6-Hr	12/25/02	0740-1400	10950 Tantau Roof Top - Center Location (near the building HVAC intake)
2A	6-Hr	12/25/02	0755-1400	10950 Tantau Electrical Room in Lobby - Southwest Side
3A	6-Hr	12/25/02	0758-1400	10950 Tantau Shipping/Receiving Area - East Side
4A	6-Hr	12/25/02	0805-1406	10950 Tantau-19000 Homestead Fire Riser/Electrical Room - West Side
5A	6-Hr	12/25/02	0815-1415	19000 Homestead –Electrical Room/Office area – North Side
6A	6-Hr	12/25/02	0820-1420	10950 Tantau Hallway – South Side
7A	6-Hr	12/25/02	0825-1425	19000 Homestead – Fire Riser Room – West Side
8A	Grab	12/26/02	1115	Soil Vapor Extraction Emission Port- Treatment System Area

Table 2. Volatile Organic Compound Concentrations - 6-Hour Integrated Sample

Location Sampling ID	Outdoor 1A	Indoor 2A	Indoor 3A	Indoor 4A	Indoor 5A	Indoor 6A	Indoor 7A	Outdoor 1A	Indoor 2A	Indoor 3A	Indoor 4A	Indoor 5A	Indoor 6A	Indoor 7A
Analyte	$\mu\text{g}/\text{m}^3$							ppbV						
1,2,4-Trichlorobenzene	<1.4	<1.3	<1.6	2.00	<1.4	<1.5	<1.5	<0.19	<0.18	<0.22	0.27	<0.18	<0.20	<0.20
2-Butanone (MEK)	<1.4	<1.3	<1.6	1.90	1.50	<1.5	3.90	<0.47	<0.44	<0.55	0.65	0.52	<0.51	1.30
Acetone	6.10	15.00	7.70	16.00	9.80	13.00	22.00	2.60	6.30	3.20	6.60	4.10	5.60	9.30
Isopropyl Alcohol	<1.4	2.30	<1.6	2.70	3.60	<1.5	6.50	<0.57	0.93	<0.66	1.10	1.40	<0.61	2.60
<i>m,p</i> -Xylenes	<1.4	<1.3	<1.6	<1.4	1.60	<1.5	1.50	<0.32	<0.30	<0.37	<0.32	0.38	<0.35	0.35
Toluene	2.50	3.10	3.60	3.80	4.60	2.40	5.50	0.68	0.83	0.97	1.00	1.20	0.64	1.50
Trichlorofluoromethane (Freon 11)	1.60	9.80	5.10	10.00	11.00	9.30	9.90	0.28	1.70	0.91	1.80	2.00	1.70	1.80
Trichlorotrifluoroethane	<1.4	2.20	<1.6	1.80	<1.4	<1.5	<1.5	<0.18	0.29	<0.21	0.24	<0.18	<0.20	<0.20

Table 3. Volatile Organic Compound Concentrations -Grab Sample

Location Sampling ID	Soil Vapor 8A	Soil Vapor 8A
Analyte	$\mu\text{g}/\text{m}^3$	ppbV
1,1,1-Trichloroethane	1,700	310
1,1-Dichloroethene	350	88
cis-1,2-Dichloroethene	4,000	1,000
Trichloroethene	47,000	8,700
Trichlorotrifluoroethane	810	110

FIGURES

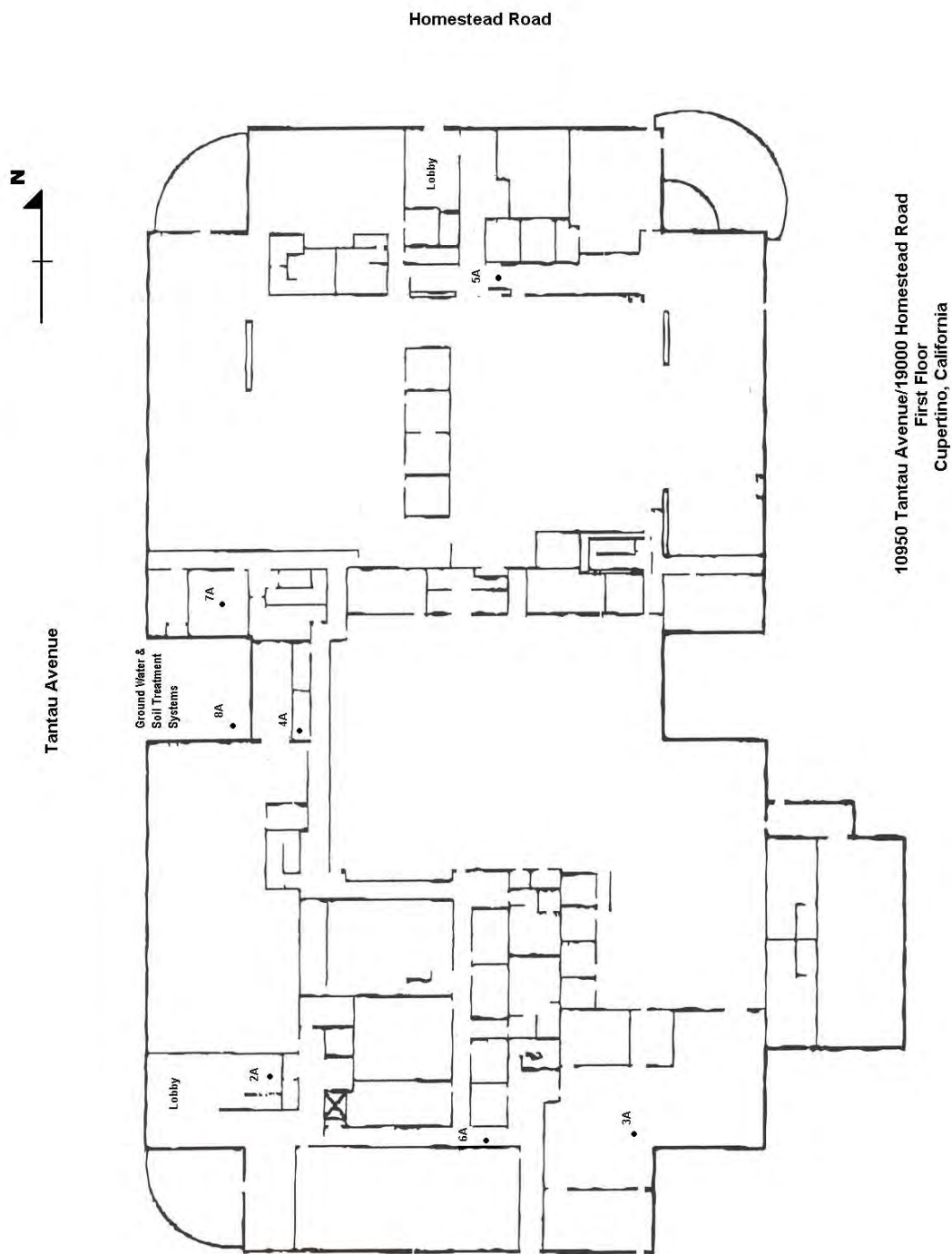


Figure 1. Site Map with Air Sample Locations

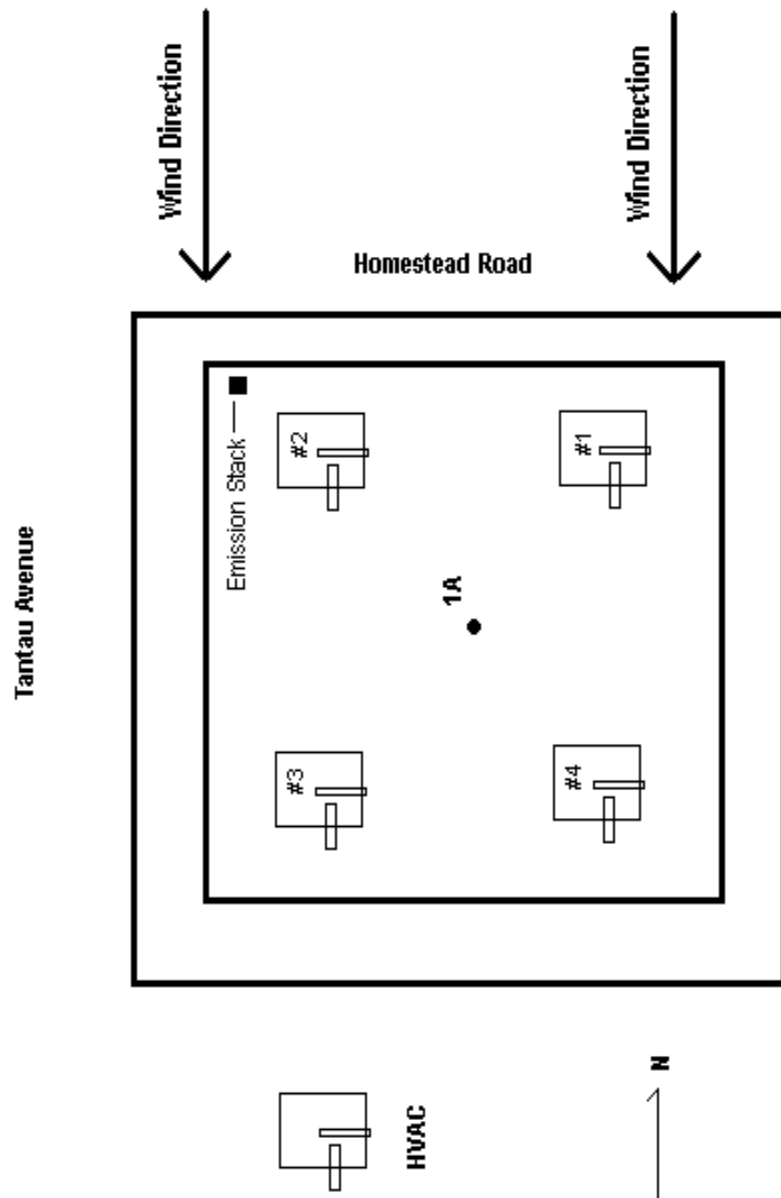
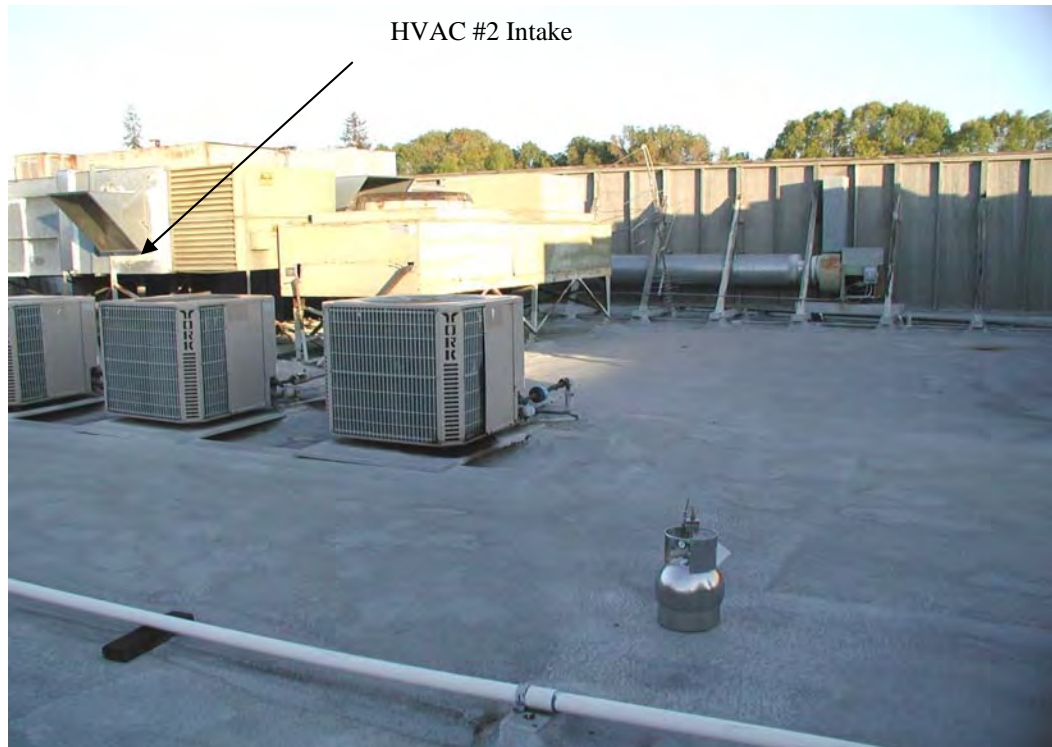


Figure 2. 10950 Tantau Roof Top and Sample Location

A T T A C H M E N T A

Photographs of Sampling Locations



Sample # 1A



Sample # 2A



Sample # 3A

Concrete Cracks



Sample # 4A



Sample #5



Sample # 6A



Sample # 7A



Sample # 8A

A T T A C H M E N T B

Photographs of Remediation Systems



Photo #1

The ground water and soil vapor treatment systems are located on the Tantau Avenue side of the building (west facing). The left gate contains control systems and storage. The right gate contains the ground water and soil vapor treatment systems. There are three treatment systems on-site associated with the ground water and soil contamination. The first treatment system is the ground water air stripper which has not been in use for over 6-months. The second is the carbon absorption ground water treatment system which has replaced the air stripper. The carbon absorption system is a liquid pass-through system with no air emission source (water discharges only). The third is the soil vapor treatment system which has a small blower (35 cfm) that only operates from 4 pm to 7am. Emission points for the ground water air stripper (abandoned) and the soil vapor extraction system are located on the roof to the right (see Photo #3). Also, note the buildings are contiguous on the first floor. There is a slight physical separation between the “two buildings” of the second floor.

10950 Tantau Avenue lobby entrance



Left gate to the ground/soil treatment systems

Photo #2

wind direction →

Air stripper (abandoned) and soil vapor emission stacks



Right gate to the ground water/soil treatment systems

Photo #3

The larger stack (8 to 10 inch diameter) is the old ground water air stripper stack



The emission bent stack (3 to 4 inch diameter) is the soil vapor emission stack

Photo #4

Note: The closest HVAC intake is approximately 20 to 25 feet to the east of the emission stacks (refer to Sample Photo 1A in Appendix A which shows intake of the HVAC system)

The carbon absorption ground-water treatment system (the carbon beds are the blue cylinders).



The abandoned air stripper stacks with manifold.

Photo #5

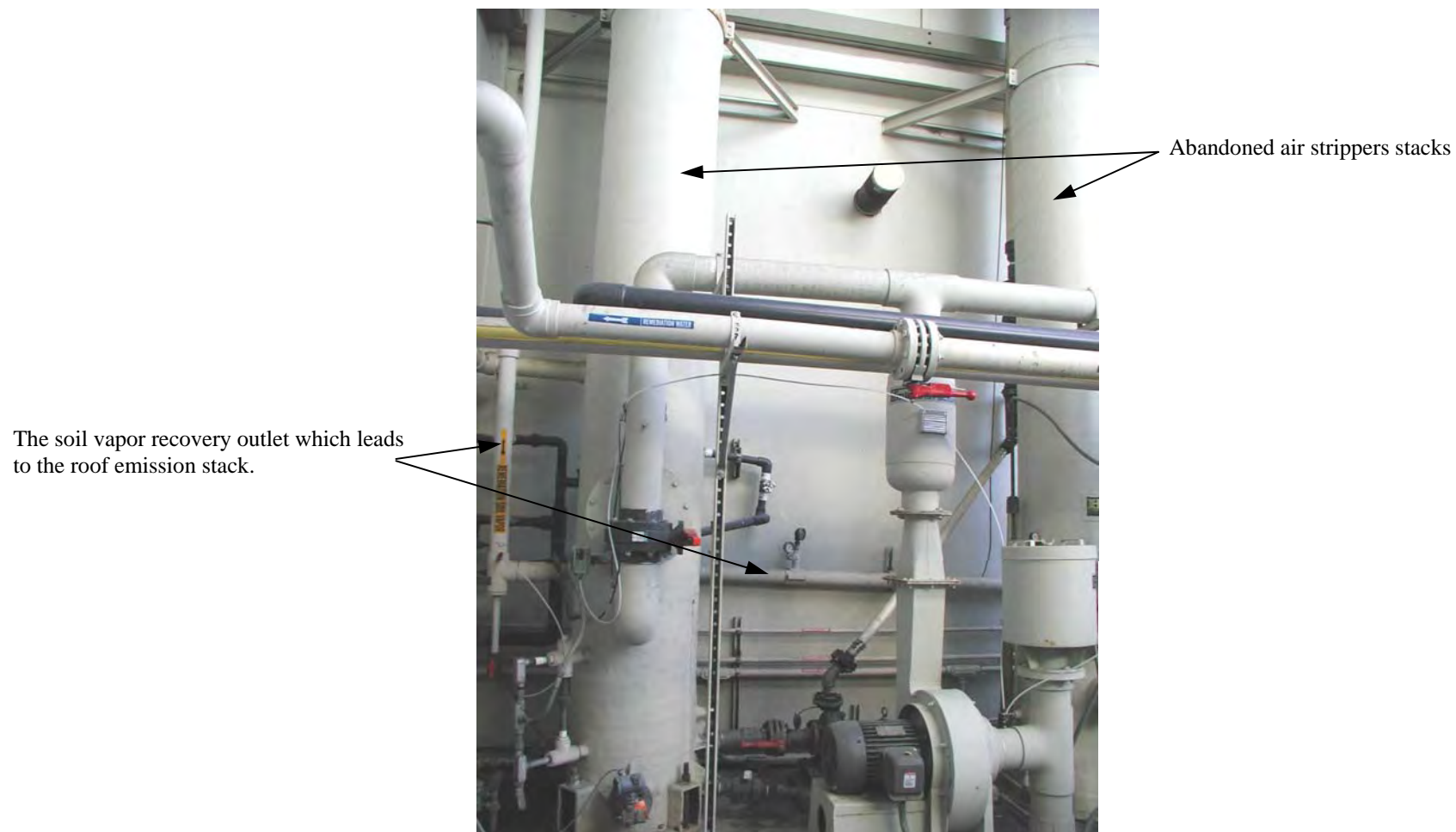


Photo #6

Grab sample location



Photo #7

This is a close-up photo of the soil vapor recovery outlet. The white tubing is connected to the emission sampling point. This pipe leads directly to the roof stack. A grab sample using a Summa canister was taken from this point on November 26, 2002 while the blower was running. The blower was allowed to run for about five to ten minutes to purge the pipe prior to the grab sample.

A T T A C H M E N T C

Laboratory Analytical Reports

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 1 of 2

Client: Environ International Corporation
Client Sample ID: 1A
Client Project ID: Kaiser/06-11057B

CAS Project ID: P2202349
CAS Sample ID: P2202349-001

Test Code: EPA TO-15
Instrument ID: HP5973/Tekmar AUTOCAN Elite
Analyst: Svetlana Walsh
Sampling Media: Summa Canister
Test Notes:
Container ID: AC00245

Date Collected: 11/25/02
Date Received: 11/26/02
Date(s) Analyzed: 12/5/02
Volume(s) Analyzed: 1.00 Liter(s)

Pi 1 = -1.7 Pf 1 = 3.5

D.F. = 1.40

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
74-87-3	Chloromethane	ND	1.4	ND	0.68	
75-01-4	Vinyl Chloride	ND	1.4	ND	0.55	
74-83-9	Bromomethane	ND	1.4	ND	0.36	
75-00-3	Chloroethane	ND	1.4	ND	0.53	
67-64-1	Acetone	6.1	1.4	2.6	0.59	
75-69-4	Trichlorofluoromethane	1.6	1.4	0.28	0.25	
67-63-0	Isopropyl Alcohol	ND	1.4	ND	0.57	
75-35-4	1,1-Dichloroethene	ND	1.4	ND	0.35	
75-09-2	Methylene chloride	ND	1.4	ND	0.40	
76-13-1	Trichlorotrifluoroethane	ND	1.4	ND	0.18	
75-15-0	Carbon Disulfide	ND	1.4	ND	0.45	
156-60-5	trans-1,2-Dichloroethene	ND	1.4	ND	0.35	
75-34-3	1,1-Dichloroethane	ND	1.4	ND	0.35	
1634-04-4	Methyl tert-Butyl Ether	ND	1.4	ND	0.39	
108-05-4	Vinyl Acetate	ND	1.4	ND	0.40	
78-93-3	2-Butanone (MEK)	ND	1.4	ND	0.47	
156-59-2	cis-1,2-Dichloroethene	ND	1.4	ND	0.35	
67-66-3	Chloroform	ND	1.4	ND	0.29	
107-06-2	1,2-Dichloroethane	ND	1.4	ND	0.35	
71-55-6	1,1,1-Trichloroethane	ND	1.4	ND	0.26	
71-43-2	Benzene	ND	1.4	ND	0.44	
56-23-5	Carbon Tetrachloride	ND	1.4	ND	0.22	
78-87-5	1,2-Dichloropropane	ND	1.4	ND	0.30	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

RESULTS OF ANALYSIS

Page 2 of 2

Client: Environ International Corporation
Client Sample ID: 1A
Client Project ID: Kaiser/06-11057B

CAS Project ID: P2202349
 CAS Sample ID: P2202349-001

Test Code: EPA TO-15
 Instrument ID: HP5973/Tekmar AUTOCAN Elite
 Analyst: Svetlana Walsh
 Sampling Media: Summa Canister
 Test Notes:
 Container ID: AC00245

Date Collected: 11/25/02
 Date Received: 11/26/02
 Date(s) Analyzed: 12/5/02
 Volume(s) Analyzed: 1.00 Liter(s)

Pi 1 = -1.7 Pf 1 = 3.5

D.F. = 1.40

CAS #	Compound	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
75-27-4	Bromodichloromethane	ND	1.4	ND	0.21	
79-01-6	Trichloroethene	ND	1.4	ND	0.26	
10061-01-5	cis-1,3-Dichloropropene	ND	1.4	ND	0.31	
108-10-1	4-Methyl-2-pentanone	ND	1.4	ND	0.34	
10061-02-6	trans-1,3-Dichloropropene	ND	1.4	ND	0.31	
79-00-5	1,1,2-Trichloroethane	ND	1.4	ND	0.26	
108-88-3	Toluene	2.5	1.4	0.68	0.37	
591-78-6	2-Hexanone	ND	1.4	ND	0.34	
124-48-1	Dibromochloromethane	ND	1.4	ND	0.16	
106-93-4	1,2-Dibromoethane	ND	1.4	ND	0.18	
123-86-4	<i>n</i> -Butyl Acetate	ND	1.4	ND	0.29	
127-18-4	Tetrachloroethene	ND	1.4	ND	0.21	
108-90-7	Chlorobenzene	ND	1.4	ND	0.30	
100-41-4	Ethylbenzene	ND	1.4	ND	0.32	
136777-61-2	<i>m,p</i> -Xylenes	ND	1.4	ND	0.32	
75-25-2	Bromoform	ND	1.4	ND	0.14	
100-42-5	Styrene	ND	1.4	ND	0.33	
95-47-6	<i>o</i> -Xylene	ND	1.4	ND	0.32	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.4	ND	0.20	
541-73-1	1,3-Dichlorobenzene	ND	1.4	ND	0.23	
106-46-7	1,4-Dichlorobenzene	ND	1.4	ND	0.23	
95-50-1	1,2-Dichlorobenzene	ND	1.4	ND	0.23	
120-82-1	1,2,4-Trichlorobenzene	ND	1.4	ND	0.19	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: _____ Date: _____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 1 of 2

Client: Environ International Corporation
Client Sample ID: 2A
Client Project ID: Kaiser/06-11057B

CAS Project ID: P2202349
CAS Sample ID: P2202349-002

Test Code: EPA TO-15
Instrument ID: HP5972/Tekmar AUTOCAN Elite
Analyst: Svetlana Walsh
Sampling Media: Summa Canister
Test Notes:
Container ID: AC00042

Date Collected: 11/25/02
Date Received: 11/26/02
Date(s) Analyzed: 12/5/02
Volume(s) Analyzed: 1.00 Liter(s)

Pi 1 = -0.8 Pf 1 = 3.5

D.F. = 1.31

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
74-87-3	Chloromethane	ND	1.3	ND	0.63	
75-01-4	Vinyl Chloride	ND	1.3	ND	0.51	
74-83-9	Bromomethane	ND	1.3	ND	0.34	
75-00-3	Chloroethane	ND	1.3	ND	0.50	
67-64-1	Acetone	15	1.3	6.3	0.55	
75-69-4	Trichlorofluoromethane	9.8	1.3	1.7	0.23	
67-63-0	Isopropyl Alcohol	2.3	1.3	0.93	0.53	
75-35-4	1,1-Dichloroethene	ND	1.3	ND	0.33	
75-09-2	Methylene chloride	ND	1.3	ND	0.38	
76-13-1	Trichlorotrifluoroethane	2.2	1.3	0.29	0.17	
75-15-0	Carbon Disulfide	ND	1.3	ND	0.42	
156-60-5	trans-1,2-Dichloroethene	ND	1.3	ND	0.33	
75-34-3	1,1-Dichloroethane	ND	1.3	ND	0.32	
1634-04-4	Methyl tert-Butyl Ether	ND	1.3	ND	0.36	
108-05-4	Vinyl Acetate	ND	1.3	ND	0.37	
78-93-3	2-Butanone (MEK)	ND	1.3	ND	0.44	
156-59-2	cis-1,2-Dichloroethene	ND	1.3	ND	0.33	
67-66-3	Chloroform	ND	1.3	ND	0.27	
107-06-2	1,2-Dichloroethane	ND	1.3	ND	0.32	
71-55-6	1,1,1-Trichloroethane	ND	1.3	ND	0.24	
71-43-2	Benzene	ND	1.3	ND	0.41	
56-23-5	Carbon Tetrachloride	ND	1.3	ND	0.21	
78-87-5	1,2-Dichloropropane	ND	1.3	ND	0.28	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

RESULTS OF ANALYSIS

Page 2 of 2

Client: Environ International Corporation
Client Sample ID: 2A
Client Project ID: Kaiser/06-11057B

CAS Project ID: P2202349
 CAS Sample ID: P2202349-002

Test Code: EPA TO-15
 Instrument ID: HP5972/Tekmar AUTOCAN Elite
 Analyst: Svetlana Walsh
 Sampling Media: Summa Canister
 Test Notes:
 Container ID: AC00042

Date Collected: 11/25/02
 Date Received: 11/26/02
 Date(s) Analyzed: 12/5/02
 Volume(s) Analyzed: 1.00 Liter(s)

Pi 1 = -0.8

Pf 1 = 3.5

D.F. = 1.31

CAS #	Compound	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
75-27-4	Bromodichloromethane	ND	1.3	ND	0.20	
79-01-6	Trichloroethene	ND	1.3	ND	0.24	
10061-01-5	cis-1,3-Dichloropropene	ND	1.3	ND	0.29	
108-10-1	4-Methyl-2-pentanone	ND	1.3	ND	0.32	
10061-02-6	trans-1,3-Dichloropropene	ND	1.3	ND	0.29	
79-00-5	1,1,2-Trichloroethane	ND	1.3	ND	0.24	
108-88-3	Toluene	3.1	1.3	0.83	0.35	
591-78-6	2-Hexanone	ND	1.3	ND	0.32	
124-48-1	Dibromochloromethane	ND	1.3	ND	0.15	
106-93-4	1,2-Dibromoethane	ND	1.3	ND	0.17	
123-86-4	<i>n</i> -Butyl Acetate	ND	1.3	ND	0.28	
127-18-4	Tetrachloroethene	ND	1.3	ND	0.19	
108-90-7	Chlorobenzene	ND	1.3	ND	0.28	
100-41-4	Ethylbenzene	ND	1.3	ND	0.30	
136777-61-2	<i>m,p</i> -Xylenes	ND	1.3	ND	0.30	
75-25-2	Bromoform	ND	1.3	ND	0.13	
100-42-5	Styrene	ND	1.3	ND	0.31	
95-47-6	<i>o</i> -Xylene	ND	1.3	ND	0.30	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.3	ND	0.19	
541-73-1	1,3-Dichlorobenzene	ND	1.3	ND	0.22	
106-46-7	1,4-Dichlorobenzene	ND	1.3	ND	0.22	
95-50-1	1,2-Dichlorobenzene	ND	1.3	ND	0.22	
120-82-1	1,2,4-Trichlorobenzene	ND	1.3	ND	0.18	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: _____ Date: _____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 1 of 2

Client: Environ International Corporation
Client Sample ID: 3A
Client Project ID: Kaiser/06-11057B

CAS Project ID: P2202349
CAS Sample ID: P2202349-003

Test Code: EPA TO-15
Instrument ID: HP5973/Tekmar AUTOCAN Elite
Analyst: Svetlana Walsh
Sampling Media: Summa Canister
Test Notes:
Container ID: AC00004

Date Collected: 11/25/02
Date Received: 11/26/02
Date(s) Analyzed: 12/5/02
Volume(s) Analyzed: 1.00 Liter(s)

Pi 1 = -3.4 Pf 1 = 3.5

D.F. = 1.61

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
74-87-3	Chloromethane	ND	1.6	ND	0.78	
75-01-4	Vinyl Chloride	ND	1.6	ND	0.63	
74-83-9	Bromomethane	ND	1.6	ND	0.41	
75-00-3	Chloroethane	ND	1.6	ND	0.61	
67-64-1	Acetone	7.7	1.6	3.2	0.68	
75-69-4	Trichlorofluoromethane	5.1	1.6	0.91	0.29	
67-63-0	Isopropyl Alcohol	ND	1.6	ND	0.66	
75-35-4	1,1-Dichloroethene	ND	1.6	ND	0.41	
75-09-2	Methylene chloride	ND	1.6	ND	0.46	
76-13-1	Trichlorotrifluoroethane	ND	1.6	ND	0.21	
75-15-0	Carbon Disulfide	ND	1.6	ND	0.52	
156-60-5	trans-1,2-Dichloroethene	ND	1.6	ND	0.41	
75-34-3	1,1-Dichloroethane	ND	1.6	ND	0.40	
1634-04-4	Methyl tert-Butyl Ether	ND	1.6	ND	0.45	
108-05-4	Vinyl Acetate	ND	1.6	ND	0.46	
78-93-3	2-Butanone (MEK)	ND	1.6	ND	0.55	
156-59-2	cis-1,2-Dichloroethene	ND	1.6	ND	0.41	
67-66-3	Chloroform	ND	1.6	ND	0.33	
107-06-2	1,2-Dichloroethane	ND	1.6	ND	0.40	
71-55-6	1,1,1-Trichloroethane	ND	1.6	ND	0.30	
71-43-2	Benzene	ND	1.6	ND	0.50	
56-23-5	Carbon Tetrachloride	ND	1.6	ND	0.26	
78-87-5	1,2-Dichloropropane	ND	1.6	ND	0.35	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

RESULTS OF ANALYSIS

Page 2 of 2

Client: Environ International Corporation
Client Sample ID: 3A
Client Project ID: Kaiser/06-11057B

CAS Project ID: P2202349
 CAS Sample ID: P2202349-003

Test Code: EPA TO-15
 Instrument ID: HP5973/Tekmar AUTOCAN Elite
 Analyst: Svetlana Walsh
 Sampling Media: Summa Canister
 Test Notes:
 Container ID: AC00004

Date Collected: 11/25/02
 Date Received: 11/26/02
 Date(s) Analyzed: 12/5/02
 Volume(s) Analyzed: 1.00 Liter(s)

Pi 1 = -3.4

Pf 1 = 3.5

D.F. = 1.61

CAS #	Compound	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
75-27-4	Bromodichloromethane	ND	1.6	ND	0.24	
79-01-6	Trichloroethene	ND	1.6	ND	0.30	
10061-01-5	cis-1,3-Dichloropropene	ND	1.6	ND	0.35	
108-10-1	4-Methyl-2-pentanone	ND	1.6	ND	0.39	
10061-02-6	trans-1,3-Dichloropropene	ND	1.6	ND	0.35	
79-00-5	1,1,2-Trichloroethane	ND	1.6	ND	0.30	
108-88-3	Toluene	3.6	1.6	0.97	0.43	
591-78-6	2-Hexanone	ND	1.6	ND	0.39	
124-48-1	Dibromochloromethane	ND	1.6	ND	0.19	
106-93-4	1,2-Dibromoethane	ND	1.6	ND	0.21	
123-86-4	<i>n</i> -Butyl Acetate	ND	1.6	ND	0.34	
127-18-4	Tetrachloroethene	ND	1.6	ND	0.24	
108-90-7	Chlorobenzene	ND	1.6	ND	0.35	
100-41-4	Ethylbenzene	ND	1.6	ND	0.37	
136777-61-2	<i>m,p</i> -Xylenes	ND	1.6	ND	0.37	
75-25-2	Bromoform	ND	1.6	ND	0.16	
100-42-5	Styrene	ND	1.6	ND	0.38	
95-47-6	<i>o</i> -Xylene	ND	1.6	ND	0.37	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.6	ND	0.23	
541-73-1	1,3-Dichlorobenzene	ND	1.6	ND	0.27	
106-46-7	1,4-Dichlorobenzene	ND	1.6	ND	0.27	
95-50-1	1,2-Dichlorobenzene	ND	1.6	ND	0.27	
120-82-1	1,2,4-Trichlorobenzene	ND	1.6	ND	0.22	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: _____ Date: _____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 1 of 2

Client: Environ International Corporation
Client Sample ID: 4A
Client Project ID: Kaiser/06-11057B

CAS Project ID: P2202349
CAS Sample ID: P2202349-004

Test Code: EPA TO-15
Instrument ID: HP5972/Tekmar AUTOCAN Elite
Analyst: Svetlana Walsh
Sampling Media: Summa Canister
Test Notes:
Container ID: AC00225

Date Collected: 11/25/02
Date Received: 11/26/02
Date(s) Analyzed: 12/5/02
Volume(s) Analyzed: 1.00 Liter(s)

Pi 1 = -1.6 Pf 1 = 3.5

D.F. = 1.39

CAS #	Compound	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
74-87-3	Chloromethane	ND	1.4	ND	0.67	
75-01-4	Vinyl Chloride	ND	1.4	ND	0.54	
74-83-9	Bromomethane	ND	1.4	ND	0.36	
75-00-3	Chloroethane	ND	1.4	ND	0.53	
67-64-1	Acetone	16	1.4	6.6	0.59	
75-69-4	Trichlorofluoromethane	10	1.4	1.8	0.25	
67-63-0	Isopropyl Alcohol	2.7	1.4	1.1	0.57	
75-35-4	1,1-Dichloroethene	ND	1.4	ND	0.35	
75-09-2	Methylene chloride	ND	1.4	ND	0.40	
76-13-1	Trichlorotrifluoroethane	1.8	1.4	0.24	0.18	
75-15-0	Carbon Disulfide	ND	1.4	ND	0.45	
156-60-5	trans-1,2-Dichloroethene	ND	1.4	ND	0.35	
75-34-3	1,1-Dichloroethane	ND	1.4	ND	0.34	
1634-04-4	Methyl tert-Butyl Ether	ND	1.4	ND	0.39	
108-05-4	Vinyl Acetate	ND	1.4	ND	0.39	
78-93-3	2-Butanone (MEK)	1.9	1.4	0.65	0.47	
156-59-2	cis-1,2-Dichloroethene	ND	1.4	ND	0.35	
67-66-3	Chloroform	ND	1.4	ND	0.28	
107-06-2	1,2-Dichloroethane	ND	1.4	ND	0.34	
71-55-6	1,1,1-Trichloroethane	ND	1.4	ND	0.25	
71-43-2	Benzene	ND	1.4	ND	0.44	
56-23-5	Carbon Tetrachloride	ND	1.4	ND	0.22	
78-87-5	1,2-Dichloropropane	ND	1.4	ND	0.30	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

RESULTS OF ANALYSIS

Page 2 of 2

Client: Environ International Corporation
Client Sample ID: 4A
Client Project ID: Kaiser/06-11057B

CAS Project ID: P2202349
 CAS Sample ID: P2202349-004

Test Code: EPA TO-15
 Instrument ID: HP5972/Tekmar AUTOCAN Elite
 Analyst: Svetlana Walsh
 Sampling Media: Summa Canister
 Test Notes:
 Container ID: AC00225

Date Collected: 11/25/02
 Date Received: 11/26/02
 Date(s) Analyzed: 12/5/02
 Volume(s) Analyzed: 1.00 Liter(s)

Pi 1 = -1.6

Pf 1 = 3.5

D.F. = 1.39

CAS #	Compound	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
75-27-4	Bromodichloromethane	ND	1.4	ND	0.21	
79-01-6	Trichloroethene	ND	1.4	ND	0.26	
10061-01-5	cis-1,3-Dichloropropene	ND	1.4	ND	0.31	
108-10-1	4-Methyl-2-pentanone	ND	1.4	ND	0.34	
10061-02-6	trans-1,3-Dichloropropene	ND	1.4	ND	0.31	
79-00-5	1,1,2-Trichloroethane	ND	1.4	ND	0.25	
108-88-3	Toluene	3.8	1.4	1.0	0.37	
591-78-6	2-Hexanone	ND	1.4	ND	0.34	
124-48-1	Dibromochloromethane	ND	1.4	ND	0.16	
106-93-4	1,2-Dibromoethane	ND	1.4	ND	0.18	
123-86-4	<i>n</i> -Butyl Acetate	ND	1.4	ND	0.29	
127-18-4	Tetrachloroethene	ND	1.4	ND	0.21	
108-90-7	Chlorobenzene	ND	1.4	ND	0.30	
100-41-4	Ethylbenzene	ND	1.4	ND	0.32	
136777-61-2	<i>m,p</i> -Xylenes	ND	1.4	ND	0.32	
75-25-2	Bromoform	ND	1.4	ND	0.13	
100-42-5	Styrene	ND	1.4	ND	0.33	
95-47-6	<i>o</i> -Xylene	ND	1.4	ND	0.32	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.4	ND	0.20	
541-73-1	1,3-Dichlorobenzene	ND	1.4	ND	0.23	
106-46-7	1,4-Dichlorobenzene	ND	1.4	ND	0.23	
95-50-1	1,2-Dichlorobenzene	ND	1.4	ND	0.23	
120-82-1	1,2,4-Trichlorobenzene	2.0	1.4	0.27	0.19	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: _____ Date: _____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 1 of 2

Client: Environ International Corporation
Client Sample ID: 5A
Client Project ID: Kaiser/06-11057B

CAS Project ID: P2202349
CAS Sample ID: P2202349-005

Test Code: EPA TO-15
Instrument ID: HP5973/Tekmar AUTOCAN Elite
Analyst: Svetlana Walsh
Sampling Media: Summa Canister
Test Notes:
Container ID: AC00115

Date Collected: 11/25/02
Date Received: 11/26/02
Date(s) Analyzed: 12/5/02
Volume(s) Analyzed: 1.00 Liter(s)

Pi 1 = -1.4 Pf 1 = 3.5

D.F. = 1.37

CAS #	Compound	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
74-87-3	Chloromethane	ND	1.4	ND	0.66	
75-01-4	Vinyl Chloride	ND	1.4	ND	0.54	
74-83-9	Bromomethane	ND	1.4	ND	0.35	
75-00-3	Chloroethane	ND	1.4	ND	0.52	
67-64-1	Acetone	9.8	1.4	4.1	0.58	
75-69-4	Trichlorofluoromethane	11	1.4	2.0	0.24	
67-63-0	Isopropyl Alcohol	3.6	1.4	1.4	0.56	
75-35-4	1,1-Dichloroethene	ND	1.4	ND	0.35	
75-09-2	Methylene chloride	ND	1.4	ND	0.39	
76-13-1	Trichlorotrifluoroethane	ND	1.4	ND	0.18	
75-15-0	Carbon Disulfide	ND	1.4	ND	0.44	
156-60-5	trans-1,2-Dichloroethene	ND	1.4	ND	0.35	
75-34-3	1,1-Dichloroethane	ND	1.4	ND	0.34	
1634-04-4	Methyl tert-Butyl Ether	ND	1.4	ND	0.38	
108-05-4	Vinyl Acetate	ND	1.4	ND	0.39	
78-93-3	2-Butanone (MEK)	1.5	1.4	0.52	0.46	
156-59-2	cis-1,2-Dichloroethene	ND	1.4	ND	0.35	
67-66-3	Chloroform	ND	1.4	ND	0.28	
107-06-2	1,2-Dichloroethane	ND	1.4	ND	0.34	
71-55-6	1,1,1-Trichloroethane	ND	1.4	ND	0.25	
71-43-2	Benzene	ND	1.4	ND	0.43	
56-23-5	Carbon Tetrachloride	ND	1.4	ND	0.22	
78-87-5	1,2-Dichloropropane	ND	1.4	ND	0.30	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

RESULTS OF ANALYSIS

Page 2 of 2

Client: Environ International Corporation
Client Sample ID: 5A
Client Project ID: Kaiser/06-11057B

CAS Project ID: P2202349
 CAS Sample ID: P2202349-005

Test Code: EPA TO-15
 Instrument ID: HP5973/Tekmar AUTOCAN Elite
 Analyst: Svetlana Walsh
 Sampling Media: Summa Canister
 Test Notes:
 Container ID: AC00115

Date Collected: 11/25/02
 Date Received: 11/26/02
 Date(s) Analyzed: 12/5/02
 Volume(s) Analyzed: 1.00 Liter(s)

Pi 1 = -1.4

Pf 1 = 3.5

D.F. = 1.37

CAS #	Compound	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
75-27-4	Bromodichloromethane	ND	1.4	ND	0.20	
79-01-6	Trichloroethene	ND	1.4	ND	0.26	
10061-01-5	cis-1,3-Dichloropropene	ND	1.4	ND	0.30	
108-10-1	4-Methyl-2-pentanone	ND	1.4	ND	0.33	
10061-02-6	trans-1,3-Dichloropropene	ND	1.4	ND	0.30	
79-00-5	1,1,2-Trichloroethane	ND	1.4	ND	0.25	
108-88-3	Toluene	4.6	1.4	1.2	0.36	
591-78-6	2-Hexanone	ND	1.4	ND	0.33	
124-48-1	Dibromochloromethane	ND	1.4	ND	0.16	
106-93-4	1,2-Dibromoethane	ND	1.4	ND	0.18	
123-86-4	<i>n</i> -Butyl Acetate	ND	1.4	ND	0.29	
127-18-4	Tetrachloroethene	ND	1.4	ND	0.20	
108-90-7	Chlorobenzene	ND	1.4	ND	0.30	
100-41-4	Ethylbenzene	ND	1.4	ND	0.32	
136777-61-2	<i>m,p</i> -Xylenes	1.6	1.4	0.38	0.32	
75-25-2	Bromoform	ND	1.4	ND	0.13	
100-42-5	Styrene	ND	1.4	ND	0.32	
95-47-6	<i>o</i> -Xylene	ND	1.4	ND	0.32	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.4	ND	0.20	
541-73-1	1,3-Dichlorobenzene	ND	1.4	ND	0.23	
106-46-7	1,4-Dichlorobenzene	ND	1.4	ND	0.23	
95-50-1	1,2-Dichlorobenzene	ND	1.4	ND	0.23	
120-82-1	1,2,4-Trichlorobenzene	ND	1.4	ND	0.18	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: _____ Date: _____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 1 of 2

Client: Environ International Corporation
Client Sample ID: 6A
Client Project ID: Kaiser/06-11057B

CAS Project ID: P2202349
CAS Sample ID: P2202349-006

Test Code: EPA TO-15
Instrument ID: HP5972/Tekmar AUTOCAN Elite
Analyst: Svetlana Walsh
Sampling Media: Summa Canister
Test Notes:
Container ID: AC00025

Date Collected: 11/25/02
Date Received: 11/26/02
Date(s) Analyzed: 12/5/02
Volume(s) Analyzed: 1.00 Liter(s)

Pi 1 = -2.6 Pf 1 = 3.5

D.F. = 1.50

CAS #	Compound	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
74-87-3	Chloromethane	ND	1.5	ND	0.73	
75-01-4	Vinyl Chloride	ND	1.5	ND	0.59	
74-83-9	Bromomethane	ND	1.5	ND	0.39	
75-00-3	Chloroethane	ND	1.5	ND	0.57	
67-64-1	Acetone	13	1.5	5.6	0.63	
75-69-4	Trichlorofluoromethane	9.3	1.5	1.7	0.27	
67-63-0	Isopropyl Alcohol	ND	1.5	ND	0.61	
75-35-4	1,1-Dichloroethene	ND	1.5	ND	0.38	
75-09-2	Methylene chloride	ND	1.5	ND	0.43	
76-13-1	Trichlorotrifluoroethane	ND	1.5	ND	0.20	
75-15-0	Carbon Disulfide	ND	1.5	ND	0.48	
156-60-5	trans-1,2-Dichloroethene	ND	1.5	ND	0.38	
75-34-3	1,1-Dichloroethane	ND	1.5	ND	0.37	
1634-04-4	Methyl tert-Butyl Ether	ND	1.5	ND	0.42	
108-05-4	Vinyl Acetate	ND	1.5	ND	0.43	
78-93-3	2-Butanone (MEK)	ND	1.5	ND	0.51	
156-59-2	cis-1,2-Dichloroethene	ND	1.5	ND	0.38	
67-66-3	Chloroform	ND	1.5	ND	0.31	
107-06-2	1,2-Dichloroethane	ND	1.5	ND	0.37	
71-55-6	1,1,1-Trichloroethane	ND	1.5	ND	0.28	
71-43-2	Benzene	ND	1.5	ND	0.47	
56-23-5	Carbon Tetrachloride	ND	1.5	ND	0.24	
78-87-5	1,2-Dichloropropane	ND	1.5	ND	0.32	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

RESULTS OF ANALYSIS

Page 2 of 2

Client: Environ International Corporation
Client Sample ID: 6A
Client Project ID: Kaiser/06-11057B

CAS Project ID: P2202349
 CAS Sample ID: P2202349-006

Test Code: EPA TO-15
 Instrument ID: HP5972/Tekmar AUTOCAN Elite
 Analyst: Svetlana Walsh
 Sampling Media: Summa Canister
 Test Notes:
 Container ID: AC00025

Date Collected: 11/25/02
 Date Received: 11/26/02
 Date(s) Analyzed: 12/5/02
 Volume(s) Analyzed: 1.00 Liter(s)

Pi 1 = -2.6 Pf 1 = 3.5

D.F. = 1.50

CAS #	Compound	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
75-27-4	Bromodichloromethane	ND	1.5	ND	0.22	
79-01-6	Trichloroethene	ND	1.5	ND	0.28	
10061-01-5	cis-1,3-Dichloropropene	ND	1.5	ND	0.33	
108-10-1	4-Methyl-2-pentanone	ND	1.5	ND	0.37	
10061-02-6	trans-1,3-Dichloropropene	ND	1.5	ND	0.33	
79-00-5	1,1,2-Trichloroethane	ND	1.5	ND	0.28	
108-88-3	Toluene	2.4	1.5	0.64	0.40	
591-78-6	2-Hexanone	ND	1.5	ND	0.37	
124-48-1	Dibromochloromethane	ND	1.5	ND	0.18	
106-93-4	1,2-Dibromoethane	ND	1.5	ND	0.20	
123-86-4	<i>n</i> -Butyl Acetate	ND	1.5	ND	0.32	
127-18-4	Tetrachloroethene	ND	1.5	ND	0.22	
108-90-7	Chlorobenzene	ND	1.5	ND	0.33	
100-41-4	Ethylbenzene	ND	1.5	ND	0.35	
136777-61-2	<i>m,p</i> -Xylenes	ND	1.5	ND	0.35	
75-25-2	Bromoform	ND	1.5	ND	0.15	
100-42-5	Styrene	ND	1.5	ND	0.35	
95-47-6	<i>o</i> -Xylene	ND	1.5	ND	0.35	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.5	ND	0.22	
541-73-1	1,3-Dichlorobenzene	ND	1.5	ND	0.25	
106-46-7	1,4-Dichlorobenzene	ND	1.5	ND	0.25	
95-50-1	1,2-Dichlorobenzene	ND	1.5	ND	0.25	
120-82-1	1,2,4-Trichlorobenzene	ND	1.5	ND	0.20	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: _____ Date: _____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 1 of 2

Client: Environ International Corporation
Client Sample ID: 7A
Client Project ID: Kaiser/06-11057B

CAS Project ID: P2202349
CAS Sample ID: P2202349-007

Test Code: EPA TO-15
Instrument ID: HP5973/Tekmar AUTOCAN Elite
Analyst: Svetlana Walsh
Sampling Media: Summa Canister
Test Notes:
Container ID: AC00014

Date Collected: 11/25/02
Date Received: 11/26/02
Date(s) Analyzed: 12/5/02
Volume(s) Analyzed: 1.00 Liter(s)

Pi 1 = -2.6 Pf 1 = 3.5

D.F. = 1.50

CAS #	Compound	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
74-87-3	Chloromethane	ND	1.5	ND	0.73	
75-01-4	Vinyl Chloride	ND	1.5	ND	0.59	
74-83-9	Bromomethane	ND	1.5	ND	0.39	
75-00-3	Chloroethane	ND	1.5	ND	0.57	
67-64-1	Acetone	22	1.5	9.3	0.63	
75-69-4	Trichlorofluoromethane	9.9	1.5	1.8	0.27	
67-63-0	Isopropyl Alcohol	6.5	1.5	2.6	0.61	
75-35-4	1,1-Dichloroethene	ND	1.5	ND	0.38	
75-09-2	Methylene chloride	ND	1.5	ND	0.43	
76-13-1	Trichlorotrifluoroethane	ND	1.5	ND	0.20	
75-15-0	Carbon Disulfide	ND	1.5	ND	0.48	
156-60-5	trans-1,2-Dichloroethene	ND	1.5	ND	0.38	
75-34-3	1,1-Dichloroethane	ND	1.5	ND	0.37	
1634-04-4	Methyl tert-Butyl Ether	ND	1.5	ND	0.42	
108-05-4	Vinyl Acetate	ND	1.5	ND	0.43	
78-93-3	2-Butanone (MEK)	3.9	1.5	1.3	0.51	
156-59-2	cis-1,2-Dichloroethene	ND	1.5	ND	0.38	
67-66-3	Chloroform	ND	1.5	ND	0.31	
107-06-2	1,2-Dichloroethane	ND	1.5	ND	0.37	
71-55-6	1,1,1-Trichloroethane	ND	1.5	ND	0.28	
71-43-2	Benzene	ND	1.5	ND	0.47	
56-23-5	Carbon Tetrachloride	ND	1.5	ND	0.24	
78-87-5	1,2-Dichloropropane	ND	1.5	ND	0.32	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

RESULTS OF ANALYSIS

Page 2 of 2

Client: Environ International Corporation
Client Sample ID: 7A
Client Project ID: Kaiser/06-11057B

CAS Project ID: P2202349
 CAS Sample ID: P2202349-007

Test Code: EPA TO-15
 Instrument ID: HP5973/Tekmar AUTOCAN Elite
 Analyst: Svetlana Walsh
 Sampling Media: Summa Canister
 Test Notes:
 Container ID: AC00014

Date Collected: 11/25/02
 Date Received: 11/26/02
 Date(s) Analyzed: 12/5/02
 Volume(s) Analyzed: 1.00 Liter(s)

Pi 1 = -2.6 Pf 1 = 3.5

D.F. = 1.50

CAS #	Compound	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
75-27-4	Bromodichloromethane	ND	1.5	ND	0.22	
79-01-6	Trichloroethene	ND	1.5	ND	0.28	
10061-01-5	cis-1,3-Dichloropropene	ND	1.5	ND	0.33	
108-10-1	4-Methyl-2-pentanone	ND	1.5	ND	0.37	
10061-02-6	trans-1,3-Dichloropropene	ND	1.5	ND	0.33	
79-00-5	1,1,2-Trichloroethane	ND	1.5	ND	0.28	
108-88-3	Toluene	5.5	1.5	1.5	0.40	
591-78-6	2-Hexanone	ND	1.5	ND	0.37	
124-48-1	Dibromochloromethane	ND	1.5	ND	0.18	
106-93-4	1,2-Dibromoethane	ND	1.5	ND	0.20	
123-86-4	<i>n</i> -Butyl Acetate	ND	1.5	ND	0.32	
127-18-4	Tetrachloroethene	ND	1.5	ND	0.22	
108-90-7	Chlorobenzene	ND	1.5	ND	0.33	
100-41-4	Ethylbenzene	ND	1.5	ND	0.35	
136777-61-2	<i>m,p</i> -Xylenes	1.5	1.5	0.35	0.35	
75-25-2	Bromoform	ND	1.5	ND	0.15	
100-42-5	Styrene	ND	1.5	ND	0.35	
95-47-6	<i>o</i> -Xylene	ND	1.5	ND	0.35	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.5	ND	0.22	
541-73-1	1,3-Dichlorobenzene	ND	1.5	ND	0.25	
106-46-7	1,4-Dichlorobenzene	ND	1.5	ND	0.25	
95-50-1	1,2-Dichlorobenzene	ND	1.5	ND	0.25	
120-82-1	1,2,4-Trichlorobenzene	ND	1.5	ND	0.20	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: _____ Date: _____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 1 of 2

Client: Environ International Corporation
Client Sample ID: Method Blank
Client Project ID: Kaiser/06-11057B

CAS Project ID: P2202349
CAS Sample ID: P021205-MB

Test Code: EPA TO-15
Instrument ID: HP5973/Tekmar AUTOCAN Elite
Analyst: Svetlana Walsh
Sampling Media: Summa Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date(s) Analyzed: 12/5/02
Volume(s) Analyzed: 1.00 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
74-87-3	Chloromethane	ND	1.0	ND	0.48	
75-01-4	Vinyl Chloride	ND	1.0	ND	0.39	
74-83-9	Bromomethane	ND	1.0	ND	0.26	
75-00-3	Chloroethane	ND	1.0	ND	0.38	
67-64-1	Acetone	ND	1.0	ND	0.42	
75-69-4	Trichlorofluoromethane	ND	1.0	ND	0.18	
67-63-0	Isopropyl Alcohol	ND	1.0	ND	0.41	
75-35-4	1,1-Dichloroethene	ND	1.0	ND	0.25	
75-09-2	Methylene chloride	ND	1.0	ND	0.29	
76-13-1	Trichlorotrifluoroethane	ND	1.0	ND	0.13	
75-15-0	Carbon Disulfide	ND	1.0	ND	0.32	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ND	0.25	
75-34-3	1,1-Dichloroethane	ND	1.0	ND	0.25	
1634-04-4	Methyl tert-Butyl Ether	ND	1.0	ND	0.28	
108-05-4	Vinyl Acetate	ND	1.0	ND	0.28	
78-93-3	2-Butanone (MEK)	ND	1.0	ND	0.34	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ND	0.25	
67-66-3	Chloroform	ND	1.0	ND	0.20	
107-06-2	1,2-Dichloroethane	ND	1.0	ND	0.25	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ND	0.18	
71-43-2	Benzene	ND	1.0	ND	0.31	
56-23-5	Carbon Tetrachloride	ND	1.0	ND	0.16	
78-87-5	1,2-Dichloropropane	ND	1.0	ND	0.22	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

RESULTS OF ANALYSIS

Page 2 of 2

Client: Environ International Corporation
Client Sample ID: Method Blank
Client Project ID: Kaiser/06-11057B

CAS Project ID: P2202349
 CAS Sample ID: P021205-MB

Test Code: EPA TO-15
 Instrument ID: HP5973/Tekmar AUTOCAN Elite
 Analyst: Svetlana Walsh
 Sampling Media: Summa Canister
 Test Notes:

Date Collected: NA
 Date Received: NA
 Date(s) Analyzed: 12/5/02
 Volume(s) Analyzed: 1.00 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
75-27-4	Bromodichloromethane	ND	1.0	ND	0.15	
79-01-6	Trichloroethene	ND	1.0	ND	0.19	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ND	0.22	
108-10-1	4-Methyl-2-pentanone	ND	1.0	ND	0.24	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ND	0.22	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ND	0.18	
108-88-3	Toluene	ND	1.0	ND	0.27	
591-78-6	2-Hexanone	ND	1.0	ND	0.24	
124-48-1	Dibromochloromethane	ND	1.0	ND	0.12	
106-93-4	1,2-Dibromoethane	ND	1.0	ND	0.13	
123-86-4	<i>n</i> -Butyl Acetate	ND	1.0	ND	0.21	
127-18-4	Tetrachloroethene	ND	1.0	ND	0.15	
108-90-7	Chlorobenzene	ND	1.0	ND	0.22	
100-41-4	Ethylbenzene	ND	1.0	ND	0.23	
136777-61-2	<i>m,p</i> -Xylenes	ND	1.0	ND	0.23	
75-25-2	Bromoform	ND	1.0	ND	0.097	
100-42-5	Styrene	ND	1.0	ND	0.23	
95-47-6	<i>o</i> -Xylene	ND	1.0	ND	0.23	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ND	0.15	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ND	0.17	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ND	0.17	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ND	0.17	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	ND	0.13	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: _____ Date: _____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 1 of 2

Client: Environ International Corporation
Client Sample ID: Method Blank
Client Project ID: Kaiser/06-11057B

CAS Project ID: P2202349
CAS Sample ID: P021205-MB

Test Code: EPA TO-15
Instrument ID: HP5972/Tekmar AUTOCAN Elite
Analyst: Svetlana Walsh
Sampling Media: Summa Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date(s) Analyzed: 12/5/02
Volume(s) Analyzed: 1.00 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
74-87-3	Chloromethane	ND	1.0	ND	0.48	
75-01-4	Vinyl Chloride	ND	1.0	ND	0.39	
74-83-9	Bromomethane	ND	1.0	ND	0.26	
75-00-3	Chloroethane	ND	1.0	ND	0.38	
67-64-1	Acetone	ND	1.0	ND	0.42	
75-69-4	Trichlorofluoromethane	ND	1.0	ND	0.18	
67-63-0	Isopropyl Alcohol	ND	1.0	ND	0.41	
75-35-4	1,1-Dichloroethene	ND	1.0	ND	0.25	
75-09-2	Methylene chloride	ND	1.0	ND	0.29	
76-13-1	Trichlorotrifluoroethane	ND	1.0	ND	0.13	
75-15-0	Carbon Disulfide	ND	1.0	ND	0.32	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ND	0.25	
75-34-3	1,1-Dichloroethane	ND	1.0	ND	0.25	
1634-04-4	Methyl tert-Butyl Ether	ND	1.0	ND	0.28	
108-05-4	Vinyl Acetate	ND	1.0	ND	0.28	
78-93-3	2-Butanone (MEK)	ND	1.0	ND	0.34	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ND	0.25	
67-66-3	Chloroform	ND	1.0	ND	0.20	
107-06-2	1,2-Dichloroethane	ND	1.0	ND	0.25	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ND	0.18	
71-43-2	Benzene	ND	1.0	ND	0.31	
56-23-5	Carbon Tetrachloride	ND	1.0	ND	0.16	
78-87-5	1,2-Dichloropropane	ND	1.0	ND	0.22	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

RESULTS OF ANALYSIS

Page 2 of 2

Client: Environ International Corporation
Client Sample ID: Method Blank
Client Project ID: Kaiser/06-11057B

CAS Project ID: P2202349
 CAS Sample ID: P021205-MB

Test Code: EPA TO-15
 Instrument ID: HP5972/Tekmar AUTOCAN Elite
 Analyst: Svetlana Walsh
 Sampling Media: Summa Canister
 Test Notes:

Date Collected: NA
 Date Received: NA
 Date(s) Analyzed: 12/5/02
 Volume(s) Analyzed: 1.00 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
75-27-4	Bromodichloromethane	ND	1.0	ND	0.15	
79-01-6	Trichloroethene	ND	1.0	ND	0.19	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ND	0.22	
108-10-1	4-Methyl-2-pentanone	ND	1.0	ND	0.24	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ND	0.22	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ND	0.18	
108-88-3	Toluene	ND	1.0	ND	0.27	
591-78-6	2-Hexanone	ND	1.0	ND	0.24	
124-48-1	Dibromochloromethane	ND	1.0	ND	0.12	
106-93-4	1,2-Dibromoethane	ND	1.0	ND	0.13	
123-86-4	<i>n</i> -Butyl Acetate	ND	1.0	ND	0.21	
127-18-4	Tetrachloroethene	ND	1.0	ND	0.15	
108-90-7	Chlorobenzene	ND	1.0	ND	0.22	
100-41-4	Ethylbenzene	ND	1.0	ND	0.23	
136777-61-2	<i>m,p</i> -Xylenes	ND	1.0	ND	0.23	
75-25-2	Bromoform	ND	1.0	ND	0.097	
100-42-5	Styrene	ND	1.0	ND	0.23	
95-47-6	<i>o</i> -Xylene	ND	1.0	ND	0.23	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ND	0.15	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ND	0.17	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ND	0.17	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ND	0.17	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	ND	0.13	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: _____ Date: _____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 1 of 1

Client: Environ International Corporation
Client Sample ID: 8A
Client Project ID: Kaiser/06-11057B

CAS Project ID: P2202366
CAS Sample ID: P2202366-001

Test Code: EPA TO-15
Instrument ID: HP5973/Tekmar AUTOCAN Elite
Analyst: Svetlana Walsh
Sampling Media: Summa Canister
Test Notes:
Container ID: AC00371

Date Collected: 11/26/02
Date Received: 11/27/02
Date(s) Analyzed: 12/2/02
Volume(s) Analyzed: 0.0050 Liter(s)
0.0010 Liter(s)

Pi 1 = 0.3 Pf 1 = 3.5

D.F. = 1.21

CAS #	Compound	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
74-87-3	Chloromethane	ND	240	ND	120	
75-01-4	Vinyl Chloride	ND	240	ND	95	
74-83-9	Bromomethane	ND	240	ND	62	
75-00-3	Chloroethane	ND	240	ND	92	
67-64-1	Acetone	ND	240	ND	100	
75-69-4	Trichlorofluoromethane	ND	240	ND	43	
67-63-0	Isopropyl Alcohol	ND	240	ND	98	
75-35-4	1,1-Dichloroethene	350	240	88	61	
75-09-2	Methylene chloride	ND	240	ND	70	
76-13-1	Trichlorotrifluoroethane	810	240	110	32	
75-15-0	Carbon Disulfide	ND	240	ND	78	
156-60-5	trans-1,2-Dichloroethene	ND	240	ND	61	
75-34-3	1,1-Dichloroethane	ND	240	ND	60	
1634-04-4	Methyl tert-Butyl Ether	ND	240	ND	67	
108-05-4	Vinyl Acetate	ND	240	ND	69	
78-93-3	2-Butanone (MEK)	ND	240	ND	82	
156-59-2	cis-1,2-Dichloroethene	4,000	240	1,000	61	
67-66-3	Chloroform	ND	240	ND	50	
107-06-2	1,2-Dichloroethane	ND	240	ND	60	
71-55-6	1,1,1-Trichloroethane	1,700	240	310	44	
71-43-2	Benzene	ND	240	ND	76	
56-23-5	Carbon Tetrachloride	ND	240	ND	38	
78-87-5	1,2-Dichloropropane	ND	240	ND	52	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

COLUMBIA ANALYTICAL SERVICES, INC.

Date: _____

RESULTS OF ANALYSIS

Page 1 of 1

Client: Environ International Corporation
Client Sample ID: 8A
Client Project ID: Kaiser/06-11057B

CAS Project ID: P2202366
CAS Sample ID: P2202366-001

Test Code: EPA TO-15
Instrument ID: HP5973/Tekmar AUTOCAN Elite
Analyst: Svetlana Walsh
Sampling Media: Summa Canister
Test Notes:
Container ID: AC00371

Date Collected: 11/26/02
Date Received: 11/27/02
Date(s) Analyzed: 12/2/02
Volume(s) Analyzed: 0.0050 Liter(s)
0.0010 Liter(s)

Pi 1 = 0.3

Pf 1 = 3.5

D.F. = 1.21

CAS #	Compound	Result $\mu\text{g}/\text{m}^3$	MRL $\mu\text{g}/\text{m}^3$	Result ppbV	MRL ppbV	Data Qualifier
75-27-4	Bromodichloromethane	ND	240	ND	36	
79-01-6	Trichloroethene	47,000	240	8,700	45	
10061-01-5	cis-1,3-Dichloropropene	ND	240	ND	53	
108-10-1	4-Methyl-2-pentanone	ND	240	ND	59	
10061-02-6	trans-1,3-Dichloropropene	ND	240	ND	53	
79-00-5	1,1,2-Trichloroethane	ND	240	ND	44	
108-88-3	Toluene	ND	240	ND	64	
591-78-6	2-Hexanone	ND	240	ND	59	
124-48-1	Dibromochloromethane	ND	240	ND	28	
106-93-4	1,2-Dibromoethane	ND	240	ND	32	
123-86-4	<i>n</i> -Butyl Acetate	ND	240	ND	51	
127-18-4	Tetrachloroethene	ND	240	ND	36	
108-90-7	Chlorobenzene	ND	240	ND	53	
100-41-4	Ethylbenzene	ND	240	ND	56	
136777-61-2	<i>m,p</i> -Xylenes	ND	240	ND	56	
75-25-2	Bromoform	ND	240	ND	23	
100-42-5	Styrene	ND	240	ND	57	
95-47-6	<i>o</i> -Xylene	ND	240	ND	56	
79-34-5	1,1,2,2-Tetrachloroethane	ND	240	ND	35	
541-73-1	1,3-Dichlorobenzene	ND	240	ND	40	
106-46-7	1,4-Dichlorobenzene	ND	240	ND	40	
95-50-1	1,2-Dichlorobenzene	ND	240	ND	40	
120-82-1	1,2,4-Trichlorobenzene	ND	240	ND	33	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: _____ Date: _____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 1 of 2

Client: **Environ International Corporation**
 Client Sample ID: **Method Blank**
 Client Project ID: **Kaiser/06-11057B**

CAS Project ID: P2202366
 CAS Sample ID: P021202-MB

Test Code: EPA TO-15
 Instrument ID: HP5973/Tekmar AUTOCAN Elite
 Analyst: Svetlana Walsh
 Sampling Media: Summa Canister
 Test Notes:

Date Collected: NA
 Date Received: NA
 Date(s) Analyzed: 12/2/02
 Volume(s) Analyzed: 1 Liter(s)

D.F. = 1.00

CAS #	Compound	Result $\mu\text{g}/\text{m}^3$	MRL $\mu\text{g}/\text{m}^3$	Result ppbV	MRL ppbV	Data Qualifier
74-87-3	Chloromethane	ND	1.0	ND	0.48	
75-01-4	Vinyl Chloride	ND	1.0	ND	0.39	
74-83-9	Bromomethane	ND	1.0	ND	0.26	
75-00-3	Chloroethane	ND	1.0	ND	0.38	
67-64-1	Acetone	ND	1.0	ND	0.42	
75-69-4	Trichlorofluoromethane	ND	1.0	ND	0.18	
67-63-0	Isopropyl Alcohol	ND	1.0	ND	0.41	
75-35-4	1,1-Dichloroethene	ND	1.0	ND	0.25	
75-09-2	Methylene chloride	ND	1.0	ND	0.29	
76-13-1	Trichlorotrifluoroethane	ND	1.0	ND	0.13	
75-15-0	Carbon Disulfide	ND	1.0	ND	0.32	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ND	0.25	
75-34-3	1,1-Dichloroethane	ND	1.0	ND	0.25	
1634-04-4	Methyl tert-Butyl Ether	ND	1.0	ND	0.28	
108-05-4	Vinyl Acetate	ND	1.0	ND	0.28	
78-93-3	2-Butanone (MEK)	ND	1.0	ND	0.34	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ND	0.25	
67-66-3	Chloroform	ND	1.0	ND	0.20	
107-06-2	1,2-Dichloroethane	ND	1.0	ND	0.25	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ND	0.18	
71-43-2	Benzene	ND	1.0	ND	0.31	
56-23-5	Carbon Tetrachloride	ND	1.0	ND	0.16	
78-87-5	1,2-Dichloropropane	ND	1.0	ND	0.22	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: _____ Date: _____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 2 of 2

Client: Environ International Corporation
Client Sample ID: Method Blank
Client Project ID: Kaiser/06-11057B

CAS Project ID: P2202366
CAS Sample ID: P021202-MB

Test Code: EPA TO-15
Instrument ID: HP5973/Tekmar AUTOCAN Elite
Analyst: Svetlana Walsh
Sampling Media: Summa Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date(s) Analyzed: 12/2/02
Volume(s) Analyzed: 1 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
75-27-4	Bromodichloromethane	ND	1.0	ND	0.15	
79-01-6	Trichloroethene	ND	1.0	ND	0.19	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ND	0.22	
108-10-1	4-Methyl-2-pentanone	ND	1.0	ND	0.24	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ND	0.22	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ND	0.18	
108-88-3	Toluene	ND	1.0	ND	0.27	
591-78-6	2-Hexanone	ND	1.0	ND	0.24	
124-48-1	Dibromochloromethane	ND	1.0	ND	0.12	
106-93-4	1,2-Dibromoethane	ND	1.0	ND	0.13	
123-86-4	<i>n</i> -Butyl Acetate	ND	1.0	ND	0.21	
127-18-4	Tetrachloroethene	ND	1.0	ND	0.15	
108-90-7	Chlorobenzene	ND	1.0	ND	0.22	
100-41-4	Ethylbenzene	ND	1.0	ND	0.23	
136777-61-2	<i>m,p</i> -Xylenes	ND	1.0	ND	0.23	
75-25-2	Bromoform	ND	1.0	ND	0.097	
100-42-5	Styrene	ND	1.0	ND	0.23	
95-47-6	<i>o</i> -Xylene	ND	1.0	ND	0.23	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ND	0.15	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ND	0.17	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ND	0.17	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ND	0.17	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	ND	0.13	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: _____ Date: _____

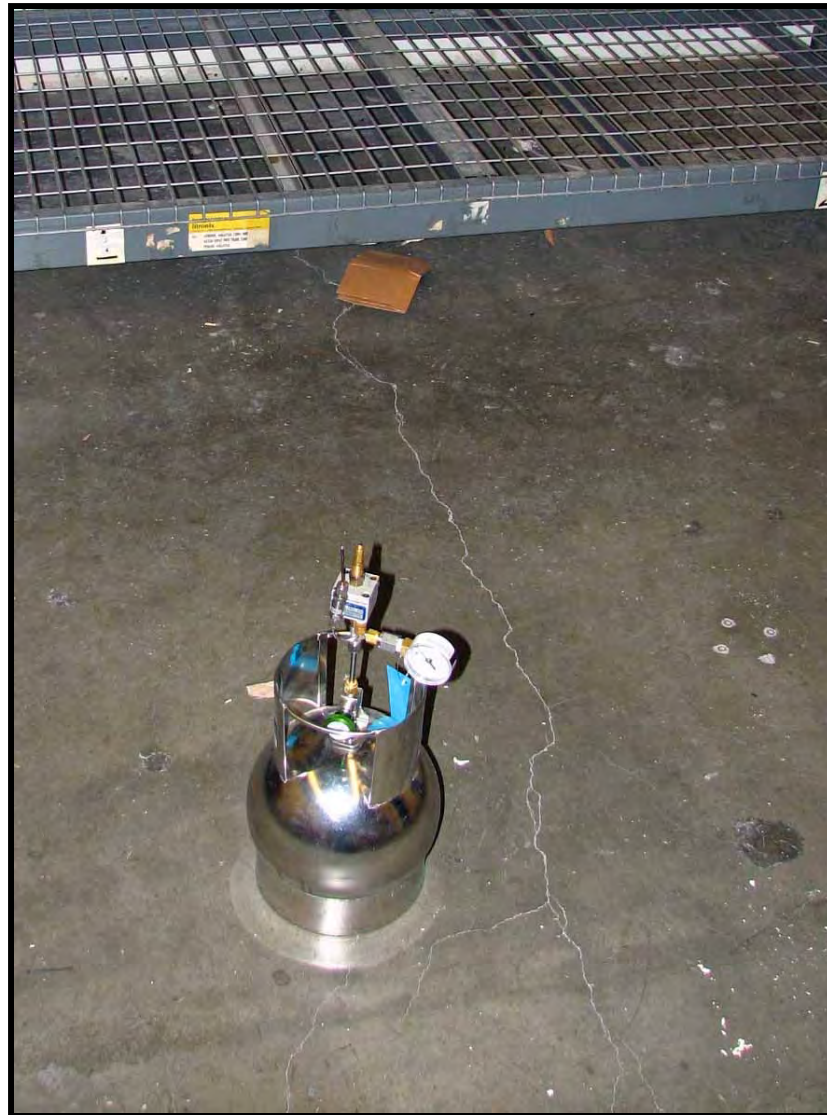
Facility:	Kaiser Permanente	Caption:	Sample 1A
Date:	03/14/2007	Notes: Building 19000, Electrical Room (PG&E Equipment Room)	
Photo No.	1		



Facility:	Kaiser Permanente	Caption:	Sample 1A (Different View)
Date:	03/14/2007	Notes: Building 19000, Electrical Room (PG&E Equipment Room)	
Photo No.	2		



Facility:	Kaiser Permanente	Caption:	Sample 2A
Date:	03/14/2007	Notes: Building 19000, Shipping and Receiving Area	
Photo No.	3		



Facility:	Kaiser Permanente	Caption:	Sample 2A (Different View)
Date:	03/14/2007	Notes: Building 19000, Shipping and Receiving Area	
Photo No.	4		



Facility:	Kaiser Permanente	Caption:	Sample 3A
Date:	03/14/2007	Notes: Building 19000, Security Room (Sprinkler Riser location)	
Photo No.	5		



Facility:	Kaiser Permanente	Caption:	Sample 3A (Closer View)
Date:	03/14/2007	Notes: Building 19000, Security Room (Sprinkler Riser location)	
Photo No.	6		



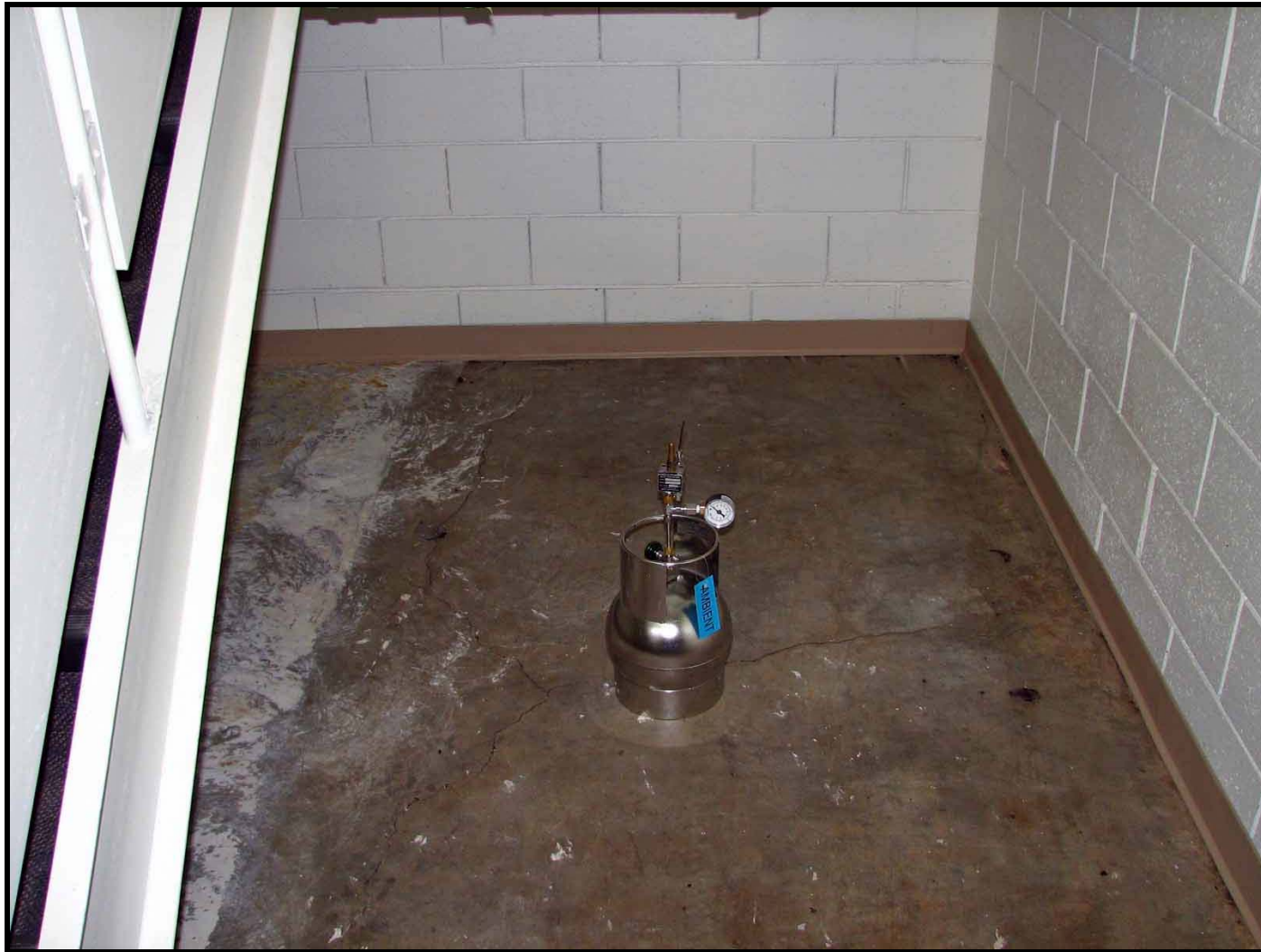
Facility:	Kaiser Permanente	Caption:	Sample 4A
Date:	03/14/2007	Notes: Building 10950, Electrical Room	
Photo No.	7		



Facility:	Kaiser Permanente	Caption:	Sample 4A (Closer View)
Date:	03/14/2007	Notes: Building 10950, Electrical Room	
Photo No.	8		



Facility:	Kaiser Permanente	Caption:	Sample 5A
Date:	03/14/2007	Notes: Building 10950, Stairs Entrance	
Photo No.	9		



Facility:	Kaiser Permanente	Caption:	Sample 6A
Date:	03/14/2007	Notes: Building 10950, Elevator Equipment Room	
Photo No.	10		



Facility:	Kaiser Permanente	Caption:	Sample 7A – Background
Date:	03/14/2007	Notes: Building 10950 Rooftop (HVAC Systems)	
Photo No.	11		



COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 1 of 2

Client: Environ International Corporation

Client Sample ID: 1A

Client Project ID: Tantau Air Sampling/04-16851B

CAS Project ID: P2700736B

CAS Sample ID: P2700736B-001

Test Code: EPA TO-15

Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9

Analyst: Liliana Marghitoiu

Sampling Media: Summa Canister

Test Notes:

Container ID: AC00522

Date Collected: 3/14/07

Date Received: 3/16/07

Date(s) Analyzed: 3/27/07

Volume(s) Analyzed: 1.00 Liter(s)

Pi 1 = -0.7

Pf 1 = 3.5

Can D.F. = 1.30

CAS #	Compound	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
74-87-3	Chloromethane	0.54	0.13	0.26	0.063	
75-01-4	Vinyl Chloride	ND	0.13	ND	0.051	
74-83-9	Bromomethane	ND	0.13	ND	0.033	
75-00-3	Chloroethane	ND	0.13	ND	0.049	
67-64-1	Acetone	11	6.5	4.5	2.7	M
75-69-4	Trichlorofluoromethane	1.1	0.13	0.19	0.023	
67-63-0	2-Propanol (Isopropyl Alcohol)	1.6	0.13	0.63	0.053	
75-35-4	1,1-Dichloroethene	ND	0.13	ND	0.033	
75-09-2	Methylene chloride	0.34	0.13	0.097	0.037	
76-13-1	Trichlorotrifluoroethane	0.55	0.13	0.072	0.017	
75-15-0	Carbon Disulfide	ND	0.65	ND	0.21	
156-60-5	trans-1,2-Dichloroethene	ND	0.13	ND	0.033	
75-34-3	1,1-Dichloroethane	ND	0.13	ND	0.032	
1634-04-4	Methyl tert-Butyl Ether	ND	0.13	ND	0.036	
108-05-4	Vinyl Acetate	2.9	1.3	0.83	0.37	M
78-93-3	2-Butanone (MEK)	1.5	0.13	0.52	0.044	
156-59-2	cis-1,2-Dichloroethene	ND	0.13	ND	0.033	
67-66-3	Chloroform	0.17	0.13	0.034	0.027	
107-06-2	1,2-Dichloroethane	ND	0.13	ND	0.032	
71-55-6	1,1,1-Trichloroethane	ND	0.13	ND	0.024	
71-43-2	Benzene	0.66	0.13	0.21	0.041	
56-23-5	Carbon Tetrachloride	0.37	0.13	0.060	0.021	
78-87-5	1,2-Dichloropropane	ND	0.13	ND	0.028	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

M = Matrix interference; results may be biased high.

Verified By: _____ Date: _____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 2 of 2

Client: Environ International Corporation

Client Sample ID: 1A

Client Project ID: Tantau Air Sampling/04-16851B

CAS Project ID: P2700736B

CAS Sample ID: P2700736B-001

Test Code: EPA TO-15

Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9

Analyst: Liliana Marghitoiu

Sampling Media: Summa Canister

Test Notes:

Container ID: AC00522

Date Collected: 3/14/07

Date Received: 3/16/07

Date(s) Analyzed: 3/27/07

Volume(s) Analyzed: 1.00 Liter(s)

Pi 1 = -0.7

Pf 1 = 3.5

Can D.F. = 1.30

CAS #	Compound	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
75-27-4	Bromodichloromethane	ND	0.13	ND	0.019	
79-01-6	Trichloroethene	0.16	0.13	0.030	0.024	
10061-01-5	cis-1,3-Dichloropropene	ND	0.13	ND	0.029	
108-10-1	4-Methyl-2-pentanone	ND	0.65	ND	0.16	
10061-02-6	trans-1,3-Dichloropropene	ND	0.65	ND	0.14	
79-00-5	1,1,2-Trichloroethane	ND	0.13	ND	0.024	
108-88-3	Toluene	2.0	0.13	0.52	0.035	
591-78-6	2-Hexanone	0.23	0.13	0.056	0.032	
124-48-1	Dibromochloromethane	ND	0.13	ND	0.015	
106-93-4	1,2-Dibromoethane	ND	0.13	ND	0.017	
123-86-4	n-Butyl Acetate	0.21	0.13	0.045	0.027	
127-18-4	Tetrachloroethene	0.76	0.13	0.11	0.019	
108-90-7	Chlorobenzene	ND	0.13	ND	0.028	
100-41-4	Ethylbenzene	0.33	0.13	0.077	0.030	
179601-23-1	m,p-Xylenes	1.5	0.26	0.36	0.060	
75-25-2	Bromoform	ND	0.13	ND	0.013	
100-42-5	Styrene	ND	0.13	ND	0.031	
95-47-6	o-Xylene	0.50	0.13	0.12	0.030	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.13	ND	0.019	
541-73-1	1,3-Dichlorobenzene	ND	0.13	ND	0.022	
106-46-7	1,4-Dichlorobenzene	ND	0.13	ND	0.022	
95-50-1	1,2-Dichlorobenzene	ND	0.13	ND	0.022	
120-82-1	1,2,4-Trichlorobenzene	ND	0.13	ND	0.018	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

M = Matrix interference; results may be biased high.

Verified By: _____ Date: _____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 1 of 2

Client: Environ International Corporation

Client Sample ID: 2A

Client Project ID: Tantau Air Sampling/04-16851B

CAS Project ID: P2700736B

CAS Sample ID: P2700736B-002

Test Code: EPA TO-15

Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9

Analyst: Liliana Marghitou

Sampling Media: Summa Canister

Test Notes:

Container ID: AC00969

Date Collected: 3/14/07

Date Received: 3/16/07

Date(s) Analyzed: 3/27/07

Volume(s) Analyzed: 1.00 Liter(s)

Pi 1 = -1.6

Pf 1 = 3.5

Can D.F. = 1.39

CAS #	Compound	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
74-87-3	Chloromethane	0.55	0.14	0.26	0.067	
75-01-4	Vinyl Chloride	ND	0.14	ND	0.054	
74-83-9	Bromomethane	ND	0.14	ND	0.036	
75-00-3	Chloroethane	ND	0.14	ND	0.053	
67-64-1	Acetone	12	7.0	5.2	2.9	
75-69-4	Trichlorofluoromethane	1.1	0.14	0.19	0.025	
67-63-0	2-Propanol (Isopropyl Alcohol)	2.6	0.14	1.1	0.057	
75-35-4	1,1-Dichloroethene	ND	0.14	ND	0.035	
75-09-2	Methylene chloride	0.38	0.14	0.11	0.040	
76-13-1	Trichlorotrifluoroethane	0.56	0.14	0.073	0.018	
75-15-0	Carbon Disulfide	ND	0.70	ND	0.22	
156-60-5	trans-1,2-Dichloroethene	ND	0.14	ND	0.035	
75-34-3	1,1-Dichloroethane	ND	0.14	ND	0.034	
1634-04-4	Methyl tert-Butyl Ether	ND	0.14	ND	0.039	
108-05-4	Vinyl Acetate	ND	1.4	ND	0.39	
78-93-3	2-Butanone (MEK)	1.4	0.14	0.49	0.047	
156-59-2	cis-1,2-Dichloroethene	ND	0.14	ND	0.035	
67-66-3	Chloroform	0.20	0.14	0.040	0.028	
107-06-2	1,2-Dichloroethane	ND	0.14	ND	0.034	
71-55-6	1,1,1-Trichloroethane	ND	0.14	ND	0.025	
71-43-2	Benzene	0.71	0.14	0.22	0.044	
56-23-5	Carbon Tetrachloride	0.38	0.14	0.061	0.022	
78-87-5	1,2-Dichloropropane	ND	0.14	ND	0.030	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: _____ Date: _____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 2 of 2

Client: Environ International Corporation

Client Sample ID: 2A

Client Project ID: Tantau Air Sampling/04-16851B

CAS Project ID: P2700736B

CAS Sample ID: P2700736B-002

Test Code: EPA TO-15

Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9

Analyst: Liliana Marghitoiu

Sampling Media: Summa Canister

Test Notes:

Container ID: AC00969

Date Collected: 3/14/07

Date Received: 3/16/07

Date(s) Analyzed: 3/27/07

Volume(s) Analyzed: 1.00 Liter(s)

Pi 1 = -1.6

Pf 1 = 3.5

Can D.F. = 1.39

CAS #	Compound	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
75-27-4	Bromodichloromethane	ND	0.14	ND	0.021	
79-01-6	Trichloroethene	0.14	0.14	0.026	0.026	
10061-01-5	cis-1,3-Dichloropropene	ND	0.14	ND	0.031	
108-10-1	4-Methyl-2-pentanone	ND	0.70	ND	0.17	
10061-02-6	trans-1,3-Dichloropropene	ND	0.70	ND	0.15	
79-00-5	1,1,2-Trichloroethane	ND	0.14	ND	0.025	
108-88-3	Toluene	2.7	0.14	0.71	0.037	
591-78-6	2-Hexanone	0.19	0.14	0.047	0.034	
124-48-1	Dibromochloromethane	ND	0.14	ND	0.016	
106-93-4	1,2-Dibromoethane	ND	0.14	ND	0.018	
123-86-4	n-Butyl Acetate	0.24	0.14	0.051	0.029	
127-18-4	Tetrachloroethene	0.61	0.14	0.090	0.021	
108-90-7	Chlorobenzene	ND	0.14	ND	0.030	
100-41-4	Ethylbenzene	0.52	0.14	0.12	0.032	
179601-23-1	m,p-Xylenes	2.6	0.28	0.61	0.064	
75-25-2	Bromoform	ND	0.14	ND	0.013	
100-42-5	Styrene	0.19	0.14	0.044	0.033	
95-47-6	o-Xylene	1.1	0.14	0.25	0.032	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.14	ND	0.020	
541-73-1	1,3-Dichlorobenzene	ND	0.14	ND	0.023	
106-46-7	1,4-Dichlorobenzene	0.39	0.14	0.065	0.023	
95-50-1	1,2-Dichlorobenzene	ND	0.14	ND	0.023	
120-82-1	1,2,4-Trichlorobenzene	ND	0.14	ND	0.019	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: _____ Date: _____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 1 of 2

Client: Environ International Corporation

Client Sample ID: 3A

Client Project ID: Tantau Air Sampling/04-16851B

CAS Project ID: P2700736B

CAS Sample ID: P2700736B-003

Test Code: EPA TO-15

Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9

Analyst: Liliana Marghitoiu

Sampling Media: Summa Canister

Test Notes:

Container ID: AC00606

Date Collected: 3/14/07

Date Received: 3/16/07

Date(s) Analyzed: 3/27/07

Volume(s) Analyzed: 1.00 Liter(s)

Pi 1 = -3.2

Pf 1 = 3.6

Can D.F. = 1.59

CAS #	Compound	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
74-87-3	Chloromethane	0.58	0.16	0.28	0.077	
75-01-4	Vinyl Chloride	ND	0.16	ND	0.062	
74-83-9	Bromomethane	ND	0.16	ND	0.041	
75-00-3	Chloroethane	ND	0.16	ND	0.060	
67-64-1	Acetone	14	8.0	5.9	3.3	
75-69-4	Trichlorofluoromethane	1.2	0.16	0.21	0.028	
67-63-0	2-Propanol (Isopropyl Alcohol)	4.6	0.16	1.9	0.065	
75-35-4	1,1-Dichloroethene	ND	0.16	ND	0.040	
75-09-2	Methylene chloride	0.39	0.16	0.11	0.046	
76-13-1	Trichlorotrifluoroethane	0.63	0.16	0.082	0.021	
75-15-0	Carbon Disulfide	ND	0.80	ND	0.26	
156-60-5	trans-1,2-Dichloroethene	ND	0.16	ND	0.040	
75-34-3	1,1-Dichloroethane	ND	0.16	ND	0.039	
1634-04-4	Methyl tert-Butyl Ether	ND	0.16	ND	0.044	
108-05-4	Vinyl Acetate	ND	1.6	ND	0.45	
78-93-3	2-Butanone (MEK)	1.0	0.16	0.35	0.054	
156-59-2	cis-1,2-Dichloroethene	ND	0.16	ND	0.040	
67-66-3	Chloroform	0.34	0.16	0.069	0.033	
107-06-2	1,2-Dichloroethane	ND	0.16	ND	0.039	
71-55-6	1,1,1-Trichloroethane	0.38	0.16	0.069	0.029	
71-43-2	Benzene	0.77	0.16	0.24	0.050	
56-23-5	Carbon Tetrachloride	0.38	0.16	0.060	0.025	
78-87-5	1,2-Dichloropropane	ND	0.16	ND	0.034	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: _____ Date: _____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 2 of 2

Client: Environ International Corporation

Client Sample ID: 3A

Client Project ID: Tantau Air Sampling/04-16851B

CAS Project ID: P2700736B

CAS Sample ID: P2700736B-003

Test Code: EPA TO-15

Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9

Analyst: Liliana Marghitoiu

Sampling Media: Summa Canister

Test Notes:

Container ID: AC00606

Date Collected: 3/14/07

Date Received: 3/16/07

Date(s) Analyzed: 3/27/07

Volume(s) Analyzed: 1.00 Liter(s)

Pi 1 = -3.2

Pf 1 = 3.6

Can D.F. = 1.59

CAS #	Compound	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
75-27-4	Bromodichloromethane	ND	0.16	ND	0.024	
79-01-6	Trichloroethene	0.56	0.16	0.10	0.030	
10061-01-5	cis-1,3-Dichloropropene	ND	0.16	ND	0.035	
108-10-1	4-Methyl-2-pentanone	0.93	0.80	0.23	0.19	
10061-02-6	trans-1,3-Dichloropropene	ND	0.80	ND	0.18	
79-00-5	1,1,2-Trichloroethane	ND	0.16	ND	0.029	
108-88-3	Toluene	2.2	0.16	0.59	0.042	
591-78-6	2-Hexanone	0.22	0.16	0.053	0.039	
124-48-1	Dibromochloromethane	ND	0.16	ND	0.019	
106-93-4	1,2-Dibromoethane	ND	0.16	ND	0.021	
123-86-4	n-Butyl Acetate	0.69	0.16	0.15	0.033	
127-18-4	Tetrachloroethene	0.80	0.16	0.12	0.023	
108-90-7	Chlorobenzene	ND	0.16	ND	0.035	
100-41-4	Ethylbenzene	0.45	0.16	0.10	0.037	
179601-23-1	m,p-Xylenes	2.0	0.32	0.46	0.073	
75-25-2	Bromoform	ND	0.16	ND	0.015	
100-42-5	Styrene	0.25	0.16	0.060	0.037	
95-47-6	o-Xylene	0.74	0.16	0.17	0.037	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.16	ND	0.023	
541-73-1	1,3-Dichlorobenzene	ND	0.16	ND	0.026	
106-46-7	1,4-Dichlorobenzene	ND	0.16	ND	0.026	
95-50-1	1,2-Dichlorobenzene	ND	0.16	ND	0.026	
120-82-1	1,2,4-Trichlorobenzene	0.19	0.16	0.026	0.021	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: _____ Date: _____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 1 of 2

Client: Environ International Corporation

Client Sample ID: 4A

Client Project ID: Tantau Air Sampling/04-16851B

CAS Project ID: P2700736B

CAS Sample ID: P2700736B-004

Test Code: EPA TO-15

Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9

Analyst: Liliana Marghitoiu

Sampling Media: Summa Canister

Test Notes:

Container ID: AC01338

Date Collected: 3/14/07

Date Received: 3/16/07

Date(s) Analyzed: 3/27/07

Volume(s) Analyzed: 1.00 Liter(s)

Pi 1 = -0.3

Pf 1 = 3.6

Can D.F. = 1.27

CAS #	Compound	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
74-87-3	Chloromethane	0.56	0.13	0.27	0.062	
75-01-4	Vinyl Chloride	ND	0.13	ND	0.050	
74-83-9	Bromomethane	ND	0.13	ND	0.033	
75-00-3	Chloroethane	ND	0.13	ND	0.048	
67-64-1	Acetone	34	6.4	14	2.7	
75-69-4	Trichlorofluoromethane	1.2	0.13	0.21	0.023	
67-63-0	2-Propanol (Isopropyl Alcohol)	38	0.13	15	0.052	
75-35-4	1,1-Dichloroethene	ND	0.13	ND	0.032	
75-09-2	Methylene chloride	0.33	0.13	0.094	0.037	
76-13-1	Trichlorotrifluoroethane	0.69	0.13	0.090	0.017	
75-15-0	Carbon Disulfide	ND	0.64	ND	0.20	
156-60-5	trans-1,2-Dichloroethene	ND	0.13	ND	0.032	
75-34-3	1,1-Dichloroethane	ND	0.13	ND	0.031	
1634-04-4	Methyl tert-Butyl Ether	ND	0.13	ND	0.035	
108-05-4	Vinyl Acetate	8.5	1.3	2.4	0.36	M
78-93-3	2-Butanone (MEK)	2.9	0.13	0.98	0.043	
156-59-2	cis-1,2-Dichloroethene	ND	0.13	ND	0.032	
67-66-3	Chloroform	0.22	0.13	0.044	0.026	
107-06-2	1,2-Dichloroethane	ND	0.13	ND	0.031	
71-55-6	1,1,1-Trichloroethane	0.65	0.13	0.12	0.023	
71-43-2	Benzene	0.73	0.13	0.23	0.040	
56-23-5	Carbon Tetrachloride	0.41	0.13	0.064	0.020	
78-87-5	1,2-Dichloropropane	ND	0.13	ND	0.027	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

M = Matrix interference; results may be biased high.

Verified By: _____ Date: _____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 2 of 2

Client: Environ International Corporation

Client Sample ID: 4A

Client Project ID: Tantau Air Sampling/04-16851B

CAS Project ID: P2700736B

CAS Sample ID: P2700736B-004

Test Code: EPA TO-15

Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9

Analyst: Liliana Marghitoiu

Sampling Media: Summa Canister

Test Notes:

Container ID: AC01338

Date Collected: 3/14/07

Date Received: 3/16/07

Date(s) Analyzed: 3/27/07

Volume(s) Analyzed: 1.00 Liter(s)

Pi 1 = -0.3

Pf 1 = 3.6

Can D.F. = 1.27

CAS #	Compound	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
75-27-4	Bromodichloromethane	ND	0.13	ND	0.019	
79-01-6	Trichloroethene	0.33	0.13	0.062	0.024	
10061-01-5	cis-1,3-Dichloropropene	ND	0.13	ND	0.028	
108-10-1	4-Methyl-2-pentanone	1.0	0.64	0.25	0.16	
10061-02-6	trans-1,3-Dichloropropene	ND	0.64	ND	0.14	
79-00-5	1,1,2-Trichloroethane	ND	0.13	ND	0.023	
108-88-3	Toluene	2.4	0.13	0.63	0.034	
591-78-6	2-Hexanone	0.46	0.13	0.11	0.031	
124-48-1	Dibromochloromethane	ND	0.13	ND	0.015	
106-93-4	1,2-Dibromoethane	ND	0.13	ND	0.017	
123-86-4	n-Butyl Acetate	0.76	0.13	0.16	0.027	
127-18-4	Tetrachloroethene	1.1	0.13	0.17	0.019	
108-90-7	Chlorobenzene	ND	0.13	ND	0.028	
100-41-4	Ethylbenzene	0.43	0.13	0.099	0.029	
179601-23-1	m,p-Xylenes	1.8	0.25	0.42	0.059	
75-25-2	Bromoform	ND	0.13	ND	0.012	
100-42-5	Styrene	0.20	0.13	0.047	0.030	
95-47-6	o-Xylene	0.62	0.13	0.14	0.029	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.13	ND	0.019	
541-73-1	1,3-Dichlorobenzene	ND	0.13	ND	0.021	
106-46-7	1,4-Dichlorobenzene	ND	0.13	ND	0.021	
95-50-1	1,2-Dichlorobenzene	ND	0.13	ND	0.021	
120-82-1	1,2,4-Trichlorobenzene	ND	0.13	ND	0.017	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: _____ Date: _____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 1 of 2

Client: Environ International Corporation

Client Sample ID: 5A

Client Project ID: Tantau Air Sampling/04-16851B

CAS Project ID: P2700736B

CAS Sample ID: P2700736B-005

Test Code: EPA TO-15

Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9

Analyst: Liliana Marghitoiu

Sampling Media: Summa Canister

Test Notes:

Container ID: AC00718

Date Collected: 3/14/07

Date Received: 3/16/07

Date(s) Analyzed: 3/27/07

Volume(s) Analyzed: 1.00 Liter(s)

Pi 1 = -0.5

Pf 1 = 3.7

Can D.F. = 1.30

CAS #	Compound	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
74-87-3	Chloromethane	0.58	0.13	0.28	0.063	
75-01-4	Vinyl Chloride	ND	0.13	ND	0.051	
74-83-9	Bromomethane	ND	0.13	ND	0.033	
75-00-3	Chloroethane	ND	0.13	ND	0.049	
67-64-1	Acetone	14	6.5	5.9	2.7	
75-69-4	Trichlorofluoromethane	1.1	0.13	0.20	0.023	
67-63-0	2-Propanol (Isopropyl Alcohol)	14	0.13	5.7	0.053	
75-35-4	1,1-Dichloroethene	ND	0.13	ND	0.033	
75-09-2	Methylene chloride	0.35	0.13	0.10	0.037	
76-13-1	Trichlorotrifluoroethane	0.59	0.13	0.076	0.017	
75-15-0	Carbon Disulfide	ND	0.65	ND	0.21	
156-60-5	trans-1,2-Dichloroethene	ND	0.13	ND	0.033	
75-34-3	1,1-Dichloroethane	ND	0.13	ND	0.032	
1634-04-4	Methyl tert-Butyl Ether	ND	0.13	ND	0.036	
108-05-4	Vinyl Acetate	1.6	1.3	0.47	0.37	
78-93-3	2-Butanone (MEK)	1.8	0.13	0.61	0.044	
156-59-2	cis-1,2-Dichloroethene	ND	0.13	ND	0.033	
67-66-3	Chloroform	0.28	0.13	0.057	0.027	
107-06-2	1,2-Dichloroethane	ND	0.13	ND	0.032	
71-55-6	1,1,1-Trichloroethane	ND	0.13	ND	0.024	
71-43-2	Benzene	0.69	0.13	0.22	0.041	
56-23-5	Carbon Tetrachloride	0.41	0.13	0.065	0.021	
78-87-5	1,2-Dichloropropane	ND	0.13	ND	0.028	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: _____ Date: _____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 2 of 2

Client: Environ International Corporation

Client Sample ID: 5A

Client Project ID: Tantau Air Sampling/04-16851B

CAS Project ID: P2700736B

CAS Sample ID: P2700736B-005

Test Code: EPA TO-15

Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9

Analyst: Liliana Marghitoiu

Sampling Media: Summa Canister

Test Notes:

Container ID: AC00718

Date Collected: 3/14/07

Date Received: 3/16/07

Date(s) Analyzed: 3/27/07

Volume(s) Analyzed: 1.00 Liter(s)

Pi 1 = -0.5

Pf 1 = 3.7

Can D.F. = 1.30

CAS #	Compound	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
75-27-4	Bromodichloromethane	ND	0.13	ND	0.019	
79-01-6	Trichloroethene	0.16	0.13	0.030	0.024	
10061-01-5	cis-1,3-Dichloropropene	ND	0.13	ND	0.029	
108-10-1	4-Methyl-2-pentanone	ND	0.65	ND	0.16	
10061-02-6	trans-1,3-Dichloropropene	ND	0.65	ND	0.14	
79-00-5	1,1,2-Trichloroethane	ND	0.13	ND	0.024	
108-88-3	Toluene	2.2	0.13	0.59	0.035	
591-78-6	2-Hexanone	0.33	0.13	0.080	0.032	
124-48-1	Dibromochloromethane	ND	0.13	ND	0.015	
106-93-4	1,2-Dibromoethane	ND	0.13	ND	0.017	
123-86-4	n-Butyl Acetate	0.39	0.13	0.081	0.027	
127-18-4	Tetrachloroethene	0.26	0.13	0.038	0.019	
108-90-7	Chlorobenzene	ND	0.13	ND	0.028	
100-41-4	Ethylbenzene	0.38	0.13	0.087	0.030	
179601-23-1	m,p-Xylenes	2.0	0.26	0.45	0.060	
75-25-2	Bromoform	ND	0.13	ND	0.013	
100-42-5	Styrene	0.20	0.13	0.048	0.031	
95-47-6	o-Xylene	0.77	0.13	0.18	0.030	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.13	ND	0.019	
541-73-1	1,3-Dichlorobenzene	ND	0.13	ND	0.022	
106-46-7	1,4-Dichlorobenzene	0.14	0.13	0.024	0.022	
95-50-1	1,2-Dichlorobenzene	ND	0.13	ND	0.022	
120-82-1	1,2,4-Trichlorobenzene	ND	0.13	ND	0.018	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: _____ Date: _____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 1 of 2

Client: Environ International Corporation

Client Sample ID: 6A

Client Project ID: Tantau Air Sampling/04-16851B

CAS Project ID: P2700736B

CAS Sample ID: P2700736B-006

Test Code: EPA TO-15

Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9

Analyst: Liliana Marghitoiu

Sampling Media: Summa Canister

Test Notes:

Container ID: ACC0831

Date Collected: 3/14/07

Date Received: 3/16/07

Date(s) Analyzed: 3/27/07

Volume(s) Analyzed: 1.00 Liter(s)

Pi 1 = -1.1

Pf 1 = 3.5

Can D.F. = 1.34

CAS #	Compound	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
74-87-3	Chloromethane	0.56	0.13	0.27	0.065	
75-01-4	Vinyl Chloride	ND	0.13	ND	0.052	
74-83-9	Bromomethane	ND	0.13	ND	0.035	
75-00-3	Chloroethane	ND	0.13	ND	0.051	
67-64-1	Acetone	18	6.7	7.8	2.8	
75-69-4	Trichlorofluoromethane	1.3	0.13	0.23	0.024	
67-63-0	2-Propanol (Isopropyl Alcohol)	12	0.13	5.0	0.055	
75-35-4	1,1-Dichloroethene	ND	0.13	ND	0.034	
75-09-2	Methylene chloride	0.36	0.13	0.10	0.039	
76-13-1	Trichlorotrifluoroethane	1.3	0.13	0.17	0.017	
75-15-0	Carbon Disulfide	ND	0.67	ND	0.22	
156-60-5	trans-1,2-Dichloroethene	ND	0.13	ND	0.034	
75-34-3	1,1-Dichloroethane	ND	0.13	ND	0.033	
1634-04-4	Methyl tert-Butyl Ether	ND	0.13	ND	0.037	
108-05-4	Vinyl Acetate	3.8	1.3	1.1	0.38	
78-93-3	2-Butanone (MEK)	2.1	0.13	0.70	0.045	
156-59-2	cis-1,2-Dichloroethene	ND	0.13	ND	0.034	
67-66-3	Chloroform	0.25	0.13	0.051	0.027	
107-06-2	1,2-Dichloroethane	ND	0.13	ND	0.033	
71-55-6	1,1,1-Trichloroethane	1.3	0.13	0.23	0.025	
71-43-2	Benzene	0.68	0.13	0.21	0.042	
56-23-5	Carbon Tetrachloride	0.40	0.13	0.064	0.021	
78-87-5	1,2-Dichloropropane	ND	0.13	ND	0.029	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: _____ Date: _____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 2 of 2

Client: Environ International Corporation

Client Sample ID: 6A

Client Project ID: Tantau Air Sampling/04-16851B

CAS Project ID: P2700736B

CAS Sample ID: P2700736B-006

Test Code: EPA TO-15

Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9

Analyst: Liliana Marghitoiu

Sampling Media: Summa Canister

Test Notes:

Container ID: ACC0831

Date Collected: 3/14/07

Date Received: 3/16/07

Date(s) Analyzed: 3/27/07

Volume(s) Analyzed: 1.00 Liter(s)

Pi 1 = -1.1

Pf 1 = 3.5

Can D.F. = 1.34

CAS #	Compound	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
75-27-4	Bromodichloromethane	ND	0.13	ND	0.020	
79-01-6	Trichloroethene	0.28	0.13	0.052	0.025	
10061-01-5	cis-1,3-Dichloropropene	ND	0.13	ND	0.030	
108-10-1	4-Methyl-2-pentanone	0.94	0.67	0.23	0.16	
10061-02-6	trans-1,3-Dichloropropene	ND	0.67	ND	0.15	
79-00-5	1,1,2-Trichloroethane	ND	0.13	ND	0.025	
108-88-3	Toluene	2.4	0.13	0.64	0.036	
591-78-6	2-Hexanone	0.30	0.13	0.074	0.033	
124-48-1	Dibromochloromethane	ND	0.13	ND	0.016	
106-93-4	1,2-Dibromoethane	ND	0.13	ND	0.017	
123-86-4	n-Butyl Acetate	0.61	0.13	0.13	0.028	
127-18-4	Tetrachloroethene	0.68	0.13	0.10	0.020	
108-90-7	Chlorobenzene	ND	0.13	ND	0.029	
100-41-4	Ethylbenzene	0.41	0.13	0.094	0.031	
179601-23-1	m,p-Xylenes	1.7	0.27	0.39	0.062	
75-25-2	Bromoform	ND	0.13	ND	0.013	
100-42-5	Styrene	0.21	0.13	0.048	0.031	
95-47-6	o-Xylene	0.59	0.13	0.14	0.031	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.13	ND	0.020	
541-73-1	1,3-Dichlorobenzene	ND	0.13	ND	0.022	
106-46-7	1,4-Dichlorobenzene	0.14	0.13	0.024	0.022	
95-50-1	1,2-Dichlorobenzene	ND	0.13	ND	0.022	
120-82-1	1,2,4-Trichlorobenzene	ND	0.13	ND	0.018	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: _____ Date: _____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 1 of 2

Client: Environ International Corporation

Client Sample ID: 7A

Client Project ID: Tantau Air Sampling/04-16851B

CAS Project ID: P2700736B

CAS Sample ID: P2700736B-007

Test Code: EPA TO-15

Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9

Analyst: Liliana Marghitoiu

Sampling Media: Summa Canister

Test Notes:

Container ID: AC01153

Date Collected: 3/14/07

Date Received: 3/16/07

Date(s) Analyzed: 3/27/07

Volume(s) Analyzed: 1.00 Liter(s)

Pi 1 = -1.3

Pf 1 = 3.8

Can D.F. = 1.38

CAS #	Compound	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
74-87-3	Chloromethane	0.55	0.14	0.27	0.067	
75-01-4	Vinyl Chloride	ND	0.14	ND	0.054	
74-83-9	Bromomethane	ND	0.14	ND	0.036	
75-00-3	Chloroethane	ND	0.14	ND	0.052	
67-64-1	Acetone	8.5	6.9	3.6	2.9	
75-69-4	Trichlorofluoromethane	1.1	0.14	0.19	0.025	
67-63-0	2-Propanol (Isopropyl Alcohol)	1.7	0.14	0.68	0.056	
75-35-4	1,1-Dichloroethene	ND	0.14	ND	0.035	
75-09-2	Methylene chloride	0.36	0.14	0.10	0.040	
76-13-1	Trichlorotrifluoroethane	0.58	0.14	0.076	0.018	
75-15-0	Carbon Disulfide	ND	0.69	ND	0.22	
156-60-5	trans-1,2-Dichloroethene	ND	0.14	ND	0.035	
75-34-3	1,1-Dichloroethane	ND	0.14	ND	0.034	
1634-04-4	Methyl tert-Butyl Ether	ND	0.14	ND	0.038	
108-05-4	Vinyl Acetate	ND	1.4	ND	0.39	
78-93-3	2-Butanone (MEK)	1.3	0.14	0.44	0.047	
156-59-2	cis-1,2-Dichloroethene	ND	0.14	ND	0.035	
67-66-3	Chloroform	0.33	0.14	0.068	0.028	
107-06-2	1,2-Dichloroethane	ND	0.14	ND	0.034	
71-55-6	1,1,1-Trichloroethane	ND	0.14	ND	0.025	
71-43-2	Benzene	0.62	0.14	0.19	0.043	
56-23-5	Carbon Tetrachloride	0.39	0.14	0.061	0.022	
78-87-5	1,2-Dichloropropane	ND	0.14	ND	0.030	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: _____ Date: _____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 2 of 2

Client: Environ International Corporation

Client Sample ID: 7A

Client Project ID: Tantau Air Sampling/04-16851B

CAS Project ID: P2700736B

CAS Sample ID: P2700736B-007

Test Code: EPA TO-15

Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9

Analyst: Liliana Marghitoiu

Sampling Media: Summa Canister

Test Notes:

Container ID: AC01153

Date Collected: 3/14/07

Date Received: 3/16/07

Date(s) Analyzed: 3/27/07

Volume(s) Analyzed: 1.00 Liter(s)

Pi 1 = -1.3

Pf 1 = 3.8

Can D.F. = 1.38

CAS #	Compound	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
75-27-4	Bromodichloromethane	ND	0.14	ND	0.021	
79-01-6	Trichloroethene	0.19	0.14	0.035	0.026	
10061-01-5	cis-1,3-Dichloropropene	ND	0.14	ND	0.030	
108-10-1	4-Methyl-2-pentanone	ND	0.69	ND	0.17	
10061-02-6	trans-1,3-Dichloropropene	ND	0.69	ND	0.15	
79-00-5	1,1,2-Trichloroethane	ND	0.14	ND	0.025	
108-88-3	Toluene	1.7	0.14	0.45	0.037	
591-78-6	2-Hexanone	0.19	0.14	0.047	0.034	
124-48-1	Dibromochloromethane	ND	0.14	ND	0.016	
106-93-4	1,2-Dibromoethane	ND	0.14	ND	0.018	
123-86-4	n-Butyl Acetate	ND	0.14	ND	0.029	
127-18-4	Tetrachloroethene	0.16	0.14	0.024	0.020	
108-90-7	Chlorobenzene	ND	0.14	ND	0.030	
100-41-4	Ethylbenzene	0.30	0.14	0.070	0.032	
179601-23-1	m,p-Xylenes	1.3	0.28	0.30	0.064	
75-25-2	Bromoform	ND	0.14	ND	0.013	
100-42-5	Styrene	ND	0.14	ND	0.032	
95-47-6	o-Xylene	0.44	0.14	0.10	0.032	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.14	ND	0.020	
541-73-1	1,3-Dichlorobenzene	ND	0.14	ND	0.023	
106-46-7	1,4-Dichlorobenzene	0.14	0.14	0.024	0.023	
95-50-1	1,2-Dichlorobenzene	ND	0.14	ND	0.023	
120-82-1	1,2,4-Trichlorobenzene	ND	0.14	ND	0.019	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: _____ Date: _____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 1 of 2

Client: Environ International Corporation

Client Sample ID: Method Blank

Client Project ID: Tantau Air Sampling/04-16851B

CAS Project ID: P2700736B

CAS Sample ID: P070327-MB

Test Code: EPA TO-15

Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9

Analyst: Liliana Marghitoiu

Sampling Media: Summa Canister

Test Notes:

Date Collected: NA

Date Received: NA

Date(s) Analyzed: 3/27/07

Volume(s) Analyzed: 1.00 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
74-87-3	Chloromethane	ND	0.10	ND	0.048	
75-01-4	Vinyl Chloride	ND	0.10	ND	0.039	
74-83-9	Bromomethane	ND	0.10	ND	0.026	
75-00-3	Chloroethane	ND	0.10	ND	0.038	
67-64-1	Acetone	ND	5.0	ND	2.1	
75-69-4	Trichlorofluoromethane	ND	0.10	ND	0.018	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	0.10	ND	0.041	
75-35-4	1,1-Dichloroethene	ND	0.10	ND	0.025	
75-09-2	Methylene chloride	ND	0.10	ND	0.029	
76-13-1	Trichlorotrifluoroethane	ND	0.10	ND	0.013	
75-15-0	Carbon Disulfide	ND	0.50	ND	0.16	
156-60-5	trans-1,2-Dichloroethene	ND	0.10	ND	0.025	
75-34-3	1,1-Dichloroethane	ND	0.10	ND	0.025	
1634-04-4	Methyl tert-Butyl Ether	ND	0.10	ND	0.028	
108-05-4	Vinyl Acetate	ND	1.0	ND	0.28	
78-93-3	2-Butanone (MEK)	ND	0.10	ND	0.034	
156-59-2	cis-1,2-Dichloroethene	ND	0.10	ND	0.025	
67-66-3	Chloroform	ND	0.10	ND	0.020	
107-06-2	1,2-Dichloroethane	ND	0.10	ND	0.025	
71-55-6	1,1,1-Trichloroethane	ND	0.10	ND	0.018	
71-43-2	Benzene	ND	0.10	ND	0.031	
56-23-5	Carbon Tetrachloride	ND	0.10	ND	0.016	
78-87-5	1,2-Dichloropropane	ND	0.10	ND	0.022	

ND = Compound was analyzed for, but not detected above the **laboratory reporting limit**.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: _____ Date: _____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 2 of 2

Client: Environ International Corporation

Client Sample ID: Method Blank

Client Project ID: Tantau Air Sampling/04-16851B

CAS Project ID: P2700736B

CAS Sample ID: P070327-MB

Test Code: EPA TO-15

Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9

Analyst: Liliana Marghitoiu

Sampling Media: Summa Canister

Test Notes:

Date Collected: NA

Date Received: NA

Date(s) Analyzed: 3/27/07

Volume(s) Analyzed: 1.00 Liter(s)

D.F. = 1.00

CAS #	Compound	Result µg/m ³	MRL µg/m ³	Result ppbV	MRL ppbV	Data Qualifier
75-27-4	Bromodichloromethane	ND	0.10	ND	0.015	
79-01-6	Trichloroethene	ND	0.10	ND	0.019	
10061-01-5	cis-1,3-Dichloropropene	ND	0.10	ND	0.022	
108-10-1	4-Methyl-2-pentanone	ND	0.50	ND	0.12	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ND	0.11	
79-00-5	1,1,2-Trichloroethane	ND	0.10	ND	0.018	
108-88-3	Toluene	ND	0.10	ND	0.027	
591-78-6	2-Hexanone	ND	0.10	ND	0.024	
124-48-1	Dibromochloromethane	ND	0.10	ND	0.012	
106-93-4	1,2-Dibromoethane	ND	0.10	ND	0.013	
123-86-4	n-Butyl Acetate	ND	0.10	ND	0.021	
127-18-4	Tetrachloroethene	ND	0.10	ND	0.015	
108-90-7	Chlorobenzene	ND	0.10	ND	0.022	
100-41-4	Ethylbenzene	ND	0.10	ND	0.023	
179601-23-1	<i>m,p</i> -Xylenes	ND	0.20	ND	0.046	
75-25-2	Bromoform	ND	0.10	ND	0.0097	
100-42-5	Styrene	ND	0.10	ND	0.023	
95-47-6	o-Xylene	ND	0.10	ND	0.023	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.10	ND	0.015	
541-73-1	1,3-Dichlorobenzene	ND	0.10	ND	0.017	
106-46-7	1,4-Dichlorobenzene	ND	0.10	ND	0.017	
95-50-1	1,2-Dichlorobenzene	ND	0.10	ND	0.017	
120-82-1	1,2,4-Trichlorobenzene	ND	0.10	ND	0.013	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.

MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: _____ Date: _____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 1 of 1

Client: Environ International Corporation
Client Project ID: Tantau Air Sampling/04-16851B

CAS Project ID: P2700736B

Surrogate Spike Recovery Results

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Liliana Marghitoiu
Sampling Media: Summa Canister(s)
Test Notes:

Date Collected: 3/14/07
Date Received: 3/16/07
Date Analyzed: 3/27/07

Client Sample ID	CAS Sample ID	1,2-Dichloroethane-d4		Toluene-d8		Bromofluorobenzene		Data Qualifier
		% Recovered	Acceptance Limits	% Recovered	Acceptance Limits	% Recovered	Acceptance Limits	
Method Blank	P070327-MB	91	70-130	103	70-130	104	70-130	
Lab Control Sample	P070327-LCS	95	70-130	101	70-130	105	70-130	
1A	P2700736B-001	89	70-130	101	70-130	105	70-130	
2A	P2700736B-002	91	70-130	101	70-130	105	70-130	
3A	P2700736B-003	90	70-130	102	70-130	105	70-130	
4A	P2700736B-004	90	70-130	101	70-130	105	70-130	
5A	P2700736B-005	90	70-130	101	70-130	104	70-130	
6A	P2700736B-006	90	70-130	101	70-130	104	70-130	
7A	P2700736B-007	90	70-130	102	70-130	105	70-130	

Verified By: _____ Date: _____

COLUMBIA ANALYTICAL SERVICES, INC.**RESULTS OF ANALYSIS**

Page 1 of 2

Client: Environ International Corporation**Client Sample ID: Lab Control Sample****Client Project ID: Tantau Air Sampling/04-16851B**

CAS Project ID: P2700736B

CAS Sample ID: P070327-LCS

Laboratory Control Sample (LCS) Summary

Test Code: EPA TO-15

Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9

Analyst: Liliana Marghitoiu

Sampling Media: Summa Canister

Test Notes:

Date Collected: NA

Date Received: NA

Date Analyzed: 3/27/07

Volume(s) Analyzed: NA Liter

CAS #	Compound	Amount Spiked ng	Amount Recovered ng	% Recovery	CAS Acceptance Limits	Data Qualifier
74-87-3	Chloromethane	24.3	22.5	93	65-120	
75-01-4	Vinyl Chloride	24.8	22.8	92	67-127	
74-83-9	Bromomethane	25.0	19.0	76	65-134	
75-00-3	Chloroethane	25.0	23.8	95	71-121	
67-64-1	Acetone	26.5	22.4	85	62-113	
75-69-4	Trichlorofluoromethane	24.3	22.8	94	68-130	
67-63-0	2-Propanol (Isopropyl Alcohol)	24.5	25.2	103	72-119	
75-35-4	1,1-Dichloroethene	27.3	26.3	96	74-126	
75-09-2	Methylene chloride	26.8	22.0	82	68-120	
76-13-1	Trichlorotrifluoroethane	27.0	26.1	97	68-127	
75-15-0	Carbon Disulfide	25.0	23.4	94	69-126	
156-60-5	trans-1,2-Dichloroethene	26.3	25.7	98	76-124	
75-34-3	1,1-Dichloroethane	26.3	23.9	91	75-120	
1634-04-4	Methyl tert-Butyl Ether	26.3	24.8	94	68-123	
108-05-4	Vinyl Acetate	24.3	25.5	105	56-139	
78-93-3	2-Butanone (MEK)	26.8	27.4	102	74-126	
156-59-2	cis-1,2-Dichloroethene	26.5	25.1	95	77-122	
67-66-3	Chloroform	30.0	26.9	90	75-119	
107-06-2	1,2-Dichloroethane	26.0	24.1	93	74-125	
71-55-6	1,1,1-Trichloroethane	26.3	25.1	95	75-129	
71-43-2	Benzene	26.3	24.4	93	69-118	
56-23-5	Carbon Tetrachloride	25.8	26.7	103	72-139	
78-87-5	1,2-Dichloropropane	26.0	25.6	98	75-122	

Verified By: _____ Date: _____

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Page 2 of 2

Client: Environ International Corporation

Client Sample ID: Lab Control Sample

Client Project ID: Tantau Air Sampling/04-16851B

CAS Project ID: P2700736B

CAS Sample ID: P070327-LCS

0

0

Laboratory Control Sample (LCS) Summary

0

Test Code: EPA TO-15
 Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
 Analyst: Liliana Marghitoiu
 Sampling Media: Summa Canister
 Test Notes:

Date Collected: NA
 Date Received: NA
 Date Analyzed: 3/27/07
 Volume(s) Analyzed: NA Liter

CAS #	Compound	Amount Spiked ng	Amount Recovered ng	% Recovery	CAS Acceptance Limits	Data Qualifier
75-27-4	Bromodichloromethane	27.5	27.5	100	79-125	
79-01-6	Trichloroethene	27.3	26.8	98	74-123	
10061-01-5	cis-1,3-Dichloropropene	26.0	27.6	106	81-126	
108-10-1	4-Methyl-2-pentanone	26.5	28.8	109	78-132	
10061-02-6	trans-1,3-Dichloropropene	27.8	30.6	110	80-130	
79-00-5	1,1,2-Trichloroethane	25.8	26.6	103	76-123	
108-88-3	Toluene	26.0	25.1	97	74-124	
591-78-6	2-Hexanone	26.0	30.5	117	77-140	
124-48-1	Dibromochloromethane	26.5	29.7	112	81-139	
106-93-4	1,2-Dibromoethane	26.0	28.8	111	77-133	
123-86-4	n-Butyl Acetate	25.0	30.3	121	71-146	
127-18-4	Tetrachloroethene	25.8	26.0	101	71-135	
108-90-7	Chlorobenzene	26.0	25.6	98	76-126	
100-41-4	Ethylbenzene	25.8	26.1	101	77-127	
179601-23-1	m,p-Xylenes	61.5	62.3	101	77-128	
75-25-2	Bromoform	31.3	36.3	116	77-143	
100-42-5	Styrene	25.8	29.9	116	71-139	
95-47-6	o-Xylene	29.0	29.7	102	76-128	
79-34-5	1,1,2,2-Tetrachloroethane	29.3	30.4	104	79-130	
541-73-1	1,3-Dichlorobenzene	25.3	25.9	102	73-137	
106-46-7	1,4-Dichlorobenzene	26.0	26.6	102	71-136	
95-50-1	1,2-Dichlorobenzene	25.5	26.2	103	70-140	
120-82-1	1,2,4-Trichlorobenzene	26.8	32.3	121	68-154	

Verified By: _____ Date: _____

Appendix B
Canister Media
Certification Reports

Media Certification Report

Canister Number: 6L# 6L# 05700w/24hr# 40496

Can#: 95129-05700

Date : 02/12/14 3:48

Data File: o021124.d

www.airtoxics.com
1-800-985-5955

Name	CAS	Conc.	Units
Toluene	108-88-3	ND	ppbv
Tetrachloroethene	127-18-4	ND	ppbv
cis-1,2-Dichloroethene	156-59-2	ND	ppbv
trans-1,2-Dichloroethene	156-60-5	ND	ppbv
1,1,1-Trichloroethane	71-55-6	ND	ppbv
Vinyl Chloride	75-01-4	ND	ppbv
1,1-Dichloroethane	75-34-3	ND	ppbv
1,1-Dichloroethene	75-35-4	ND	ppbv
Trichloroethene	79-01-6	ND	ppbv
4-Bromofluorobenzene	460-00-4	101.00	% Recovery

Media Certification Report

Canister Number: 6L# 6L# 11887w/24hr# 40654

Can#: 95129-11887

Date : 02/12/14 8:34

Data File: o021129.d

www.airtoxics.com

1-800-985-5955

Name	CAS	Conc.	Units
Toluene	108-88-3	ND	ppbv
Tetrachloroethene	127-18-4	ND	ppbv
cis-1,2-Dichloroethene	156-59-2	ND	ppbv
trans-1,2-Dichloroethene	156-60-5	ND	ppbv
1,1,1-Trichloroethane	71-55-6	ND	ppbv
Vinyl Chloride	75-01-4	ND	ppbv
1,1-Dichloroethane	75-34-3	ND	ppbv
1,1-Dichloroethene	75-35-4	ND	ppbv
Trichloroethene	79-01-6	ND	ppbv
4-Bromofluorobenzene	460-00-4	98.00	% Recovery

www.airtoxics.com
1-800-985-5955

Media Certification Report

Canister Number: 6L# 6L# 12010w/24hr# 40699

Can#: 95129-12010

Date : 02/11/14 22:05

Data File: o021113.d

Name	CAS	Conc.	Units
Toluene	108-88-3	ND	ppbv
Tetrachloroethene	127-18-4	ND	ppbv
cis-1,2-Dichloroethene	156-59-2	ND	ppbv
trans-1,2-Dichloroethene	156-60-5	ND	ppbv
1,1,1-Trichloroethane	71-55-6	ND	ppbv
Vinyl Chloride	75-01-4	ND	ppbv
1,1-Dichloroethane	75-34-3	ND	ppbv
1,1-Dichloroethene	75-35-4	ND	ppbv
Trichloroethene	79-01-6	ND	ppbv
4-Bromofluorobenzene	460-00-4	100.00	% Recovery

Media Certification Report

Canister Number: 6L# 6L# 12695w/24hr# 40098

Can#: 95129-12695

Date : 02/12/14 2:17

Data File: o021121.d

www.airtoxics.com

1-800-985-5955

Name	CAS	Conc.	Units
Toluene	108-88-3	ND	ppbv
Tetrachloroethene	127-18-4	ND	ppbv
cis-1,2-Dichloroethene	156-59-2	ND	ppbv
trans-1,2-Dichloroethene	156-60-5	ND	ppbv
1,1,1-Trichloroethane	71-55-6	ND	ppbv
Vinyl Chloride	75-01-4	ND	ppbv
1,1-Dichloroethane	75-34-3	ND	ppbv
1,1-Dichloroethene	75-35-4	ND	ppbv
Trichloroethene	79-01-6	ND	ppbv
4-Bromofluorobenzene	460-00-4	102.00	% Recovery

Media Certification Report

Canister Number: 6L# 6L# 12936w/24hr# 30588

Can#: 95129-12936

Date : 02/11/14 23:45

Data File: o021116.d

www.airtoxics.com

1-800-985-5955

Name	CAS	Conc.	Units
Toluene	108-88-3	ND	ppbv
Tetrachloroethene	127-18-4	ND	ppbv
cis-1,2-Dichloroethene	156-59-2	ND	ppbv
trans-1,2-Dichloroethene	156-60-5	ND	ppbv
1,1,1-Trichloroethane	71-55-6	ND	ppbv
Vinyl Chloride	75-01-4	ND	ppbv
1,1-Dichloroethane	75-34-3	ND	ppbv
1,1-Dichloroethene	75-35-4	ND	ppbv
Trichloroethene	79-01-6	ND	ppbv
4-Bromofluorobenzene	460-00-4	101.00	% Recovery

Media Certification Report

Canister Number: 6L# 1625 w/24hr# 40223

Can#: 95129-1625

Date : 02/11/14 13:29

Data File: i021107sim.d

www.airtoxics.com
1-800-985-5955

Name	CAS	Conc.	Units
Toluene	108-88-3	ND	ppbv
Tetrachloroethene	127-18-4	ND	ppbv
cis-1,2-Dichloroethene	156-59-2	ND	ppbv
trans-1,2-Dichloroethene	156-60-5	ND	ppbv
Chloroform	67-66-3	ND	ppbv
1,1,1-Trichloroethane	71-55-6	ND	ppbv
Vinyl Chloride	75-01-4	ND	ppbv
1,1-Dichloroethane	75-34-3	ND	ppbv
1,1-Dichloroethene	75-35-4	ND	ppbv
Freon 113	76-13-1	ND	ppbv
Trichloroethene	79-01-6	ND	ppbv
1,2-Dichloroethane-d4	17060-07-0	97.00	% Recovery
Toluene-d8	2037-26-5	106.00	% Recovery
4-Bromofluorobenzene	460-00-4	97.00	% Recovery

Media Certification Report

Canister Number: 6L# 6L# 21009w/24hr# 40574

Can#: 95129-21009

Date : 02/11/14 21:03

Data File: o021111.d

www.airtoxics.com

1-800-985-5955

Name	CAS	Conc.	Units
Toluene	108-88-3	ND	ppbv
Tetrachloroethene	127-18-4	ND	ppbv
cis-1,2-Dichloroethene	156-59-2	ND	ppbv
trans-1,2-Dichloroethene	156-60-5	ND	ppbv
1,1,1-Trichloroethane	71-55-6	ND	ppbv
Vinyl Chloride	75-01-4	ND	ppbv
1,1-Dichloroethane	75-34-3	ND	ppbv
1,1-Dichloroethene	75-35-4	ND	ppbv
Trichloroethene	79-01-6	ND	ppbv
4-Bromofluorobenzene	460-00-4	96.00	% Recovery

Media Certification Report

Canister Number: 6L# 6L# 31426w/24hr# 40131

Can#: 95129-31426

Date : 02/11/14 19:33

Data File: o021108.d

www.airtoxics.com
1-800-985-5955

Name	CAS	Conc.	Units
Toluene	108-88-3	ND	ppbv
Tetrachloroethene	127-18-4	ND	ppbv
cis-1,2-Dichloroethene	156-59-2	ND	ppbv
trans-1,2-Dichloroethene	156-60-5	ND	ppbv
1,1,1-Trichloroethane	71-55-6	ND	ppbv
Vinyl Chloride	75-01-4	ND	ppbv
1,1-Dichloroethane	75-34-3	ND	ppbv
1,1-Dichloroethene	75-35-4	ND	ppbv
Trichloroethene	79-01-6	ND	ppbv
4-Bromofluorobenzene	460-00-4	100.00	% Recovery

Media Certification Report

Canister Number: 6L# 6L# 32114w/24hr# 40207

Can#: 95129-32114

Date : 02/11/14 18:32

Data File: o021106.d

www.airtoxics.com
1-800-985-5955

Name	CAS	Conc.	Units
Toluene	108-88-3	ND	ppbv
Tetrachloroethene	127-18-4	ND	ppbv
cis-1,2-Dichloroethene	156-59-2	ND	ppbv
trans-1,2-Dichloroethene	156-60-5	ND	ppbv
1,1,1-Trichloroethane	71-55-6	ND	ppbv
Vinyl Chloride	75-01-4	ND	ppbv
1,1-Dichloroethane	75-34-3	ND	ppbv
1,1-Dichloroethene	75-35-4	ND	ppbv
Trichloroethene	79-01-6	ND	ppbv
4-Bromofluorobenzene	460-00-4	99.00	% Recovery

Media Certification Report

Canister Number: 6L# 6L# 33776w/24hr# 40245

Can#: 95129-33776

Date : 02/11/14 21:35

Data File: o021112.d

www.airtoxics.com

1-800-985-5955

Name	CAS	Conc.	Units
Toluene	108-88-3	ND	ppbv
Tetrachloroethene	127-18-4	ND	ppbv
cis-1,2-Dichloroethene	156-59-2	ND	ppbv
trans-1,2-Dichloroethene	156-60-5	ND	ppbv
1,1,1-Trichloroethane	71-55-6	ND	ppbv
Vinyl Chloride	75-01-4	ND	ppbv
1,1-Dichloroethane	75-34-3	ND	ppbv
1,1-Dichloroethene	75-35-4	ND	ppbv
Trichloroethene	79-01-6	ND	ppbv
4-Bromofluorobenzene	460-00-4	100.00	% Recovery

Media Certification Report

Canister Number: 6L# 6L# 33865w/24hr# 40055

Can#: 95129-33865

Date : 02/12/14 9:35

Data File: o021131.d

www.airtoxics.com
1-800-985-5955

Name	CAS	Conc.	Units
Toluene	108-88-3	ND	ppbv
Tetrachloroethene	127-18-4	ND	ppbv
cis-1,2-Dichloroethene	156-59-2	ND	ppbv
trans-1,2-Dichloroethene	156-60-5	ND	ppbv
1,1,1-Trichloroethane	71-55-6	ND	ppbv
Vinyl Chloride	75-01-4	ND	ppbv
1,1-Dichloroethane	75-34-3	ND	ppbv
1,1-Dichloroethene	75-35-4	ND	ppbv
Trichloroethene	79-01-6	ND	ppbv
4-Bromofluorobenzene	460-00-4	100.00	% Recovery

Media Certification Report

Canister Number: 6L# 6L# 34027w/24hr# 40589

Can#: 95129-34027

Date : 02/12/14 0:15

Data File: o021117.d

www.airtoxics.com
1-800-985-5955

Name	CAS	Conc.	Units
Toluene	108-88-3	ND	ppbv
Tetrachloroethene	127-18-4	ND	ppbv
cis-1,2-Dichloroethene	156-59-2	ND	ppbv
trans-1,2-Dichloroethene	156-60-5	ND	ppbv
1,1,1-Trichloroethane	71-55-6	ND	ppbv
Vinyl Chloride	75-01-4	ND	ppbv
1,1-Dichloroethane	75-34-3	ND	ppbv
1,1-Dichloroethene	75-35-4	ND	ppbv
Trichloroethene	79-01-6	ND	ppbv
4-Bromofluorobenzene	460-00-4	103.00	% Recovery

Media Certification Report

Canister Number: 6L# 6L# 34233w/24hr# 30592

Can#: 95129-34233

Date : 02/11/14 20:03

Data File: o021109.d

www.airtoxics.com

1-800-985-5955

Name	CAS	Conc.	Units
Toluene	108-88-3	ND	ppbv
Tetrachloroethene	127-18-4	ND	ppbv
cis-1,2-Dichloroethene	156-59-2	ND	ppbv
trans-1,2-Dichloroethene	156-60-5	ND	ppbv
1,1,1-Trichloroethane	71-55-6	ND	ppbv
Vinyl Chloride	75-01-4	ND	ppbv
1,1-Dichloroethane	75-34-3	ND	ppbv
1,1-Dichloroethene	75-35-4	ND	ppbv
Trichloroethene	79-01-6	ND	ppbv
4-Bromofluorobenzene	460-00-4	99.00	% Recovery

www.airtoxics.com
1-800-985-5955

Media Certification Report

Canister Number: 6L# 6L# 34375w/24hr# 30553

Can#: 95129-34375

Date : 02/12/14 6:07

Data File: o021128.d

Name	CAS	Conc.	Units
Toluene	108-88-3	ND	ppbv
Tetrachloroethene	127-18-4	ND	ppbv
cis-1,2-Dichloroethene	156-59-2	ND	ppbv
trans-1,2-Dichloroethene	156-60-5	ND	ppbv
1,1,1-Trichloroethane	71-55-6	ND	ppbv
Vinyl Chloride	75-01-4	ND	ppbv
1,1-Dichloroethane	75-34-3	ND	ppbv
1,1-Dichloroethene	75-35-4	ND	ppbv
Trichloroethene	79-01-6	ND	ppbv
4-Bromofluorobenzene	460-00-4	96.00	% Recovery

www.airtoxics.com
1-800-985-5955

Media Certification Report

Canister Number: 6L# 6L# 34459w/24hr# 40069

Can#: 95129-34459

Date : 02/11/14 19:02

Data File: o021107.d

Name	CAS	Conc.	Units
Toluene	108-88-3	ND	ppbv
Tetrachloroethene	127-18-4	ND	ppbv
cis-1,2-Dichloroethene	156-59-2	ND	ppbv
trans-1,2-Dichloroethene	156-60-5	ND	ppbv
1,1,1-Trichloroethane	71-55-6	ND	ppbv
Vinyl Chloride	75-01-4	ND	ppbv
1,1-Dichloroethane	75-34-3	ND	ppbv
1,1-Dichloroethene	75-35-4	ND	ppbv
Trichloroethene	79-01-6	ND	ppbv
4-Bromofluorobenzene	460-00-4	98.00	% Recovery

Media Certification Report

Canister Number: 6L# 6L# 34476w/24hr# 40176

Can#: 95129-34476

Date : 02/11/14 20:33

Data File: o021110.d

www.airtoxics.com
1-800-985-5955

Name	CAS	Conc.	Units
Toluene	108-88-3	ND	ppbv
Tetrachloroethene	127-18-4	ND	ppbv
cis-1,2-Dichloroethene	156-59-2	ND	ppbv
trans-1,2-Dichloroethene	156-60-5	ND	ppbv
1,1,1-Trichloroethane	71-55-6	ND	ppbv
Vinyl Chloride	75-01-4	ND	ppbv
1,1-Dichloroethane	75-34-3	ND	ppbv
1,1-Dichloroethene	75-35-4	ND	ppbv
Trichloroethene	79-01-6	ND	ppbv
4-Bromofluorobenzene	460-00-4	101.00	% Recovery

Media Certification Report

Canister Number: 6L# 34497 w/24hr# 40181

Can#: 95129-34497

Date : 02/11/14 14:06

Data File: i021108sim.d

www.airtoxics.com

1-800-985-5955

Name	CAS	Conc.	Units
Toluene	108-88-3	ND	ppbv
Tetrachloroethene	127-18-4	ND	ppbv
cis-1,2-Dichloroethene	156-59-2	ND	ppbv
trans-1,2-Dichloroethene	156-60-5	ND	ppbv
Chloroform	67-66-3	ND	ppbv
1,1,1-Trichloroethane	71-55-6	ND	ppbv
Vinyl Chloride	75-01-4	ND	ppbv
1,1-Dichloroethane	75-34-3	ND	ppbv
1,1-Dichloroethene	75-35-4	ND	ppbv
Freon 113	76-13-1	ND	ppbv
Trichloroethene	79-01-6	ND	ppbv
1,2-Dichloroethane-d4	17060-07-0	93.00	% Recovery
Toluene-d8	2037-26-5	102.00	% Recovery
4-Bromofluorobenzene	460-00-4	101.00	% Recovery

Media Certification Report

Canister Number: 6L# 6L# 34734w/24hr# 40234

Can#: 95129-34734

Date : 02/12/14 1:18

Data File: o021119.d

www.airtoxics.com
1-800-985-5955

Name	CAS	Conc.	Units
Toluene	108-88-3	ND	ppbv
Tetrachloroethene	127-18-4	ND	ppbv
cis-1,2-Dichloroethene	156-59-2	ND	ppbv
trans-1,2-Dichloroethene	156-60-5	ND	ppbv
1,1,1-Trichloroethane	71-55-6	ND	ppbv
Vinyl Chloride	75-01-4	ND	ppbv
1,1-Dichloroethane	75-34-3	ND	ppbv
1,1-Dichloroethene	75-35-4	ND	ppbv
Trichloroethene	79-01-6	ND	ppbv
4-Bromofluorobenzene	460-00-4	104.00	% Recovery

www.airtoxics.com
1-800-985-5955

Media Certification Report

Canister Number: 6L# 34761 w/24hr# 40008
Can#: 95129-34761
Date : 02/11/14 11:41
Data File: i021106sim.d

Name	CAS	Conc.	Units
Toluene	108-88-3	ND	ppbv
Tetrachloroethene	127-18-4	ND	ppbv
cis-1,2-Dichloroethene	156-59-2	ND	ppbv
trans-1,2-Dichloroethene	156-60-5	ND	ppbv
Chloroform	67-66-3	ND	ppbv
1,1,1-Trichloroethane	71-55-6	ND	ppbv
Vinyl Chloride	75-01-4	ND	ppbv
1,1-Dichloroethane	75-34-3	ND	ppbv
1,1-Dichloroethene	75-35-4	ND	ppbv
Freon 113	76-13-1	ND	ppbv
Trichloroethene	79-01-6	ND	ppbv
1,2-Dichloroethane-d4	17060-07-0	98.00	% Recovery
Toluene-d8	2037-26-5	102.00	% Recovery
4-Bromofluorobenzene	460-00-4	98.00	% Recovery

Media Certification Report

Canister Number: 6L# 6L# 35134w/24hr# 30551

Can#: 95129-35134

Date : 02/12/14 4:50

Data File: o021126.d

www.airtoxics.com
1-800-985-5955

Name	CAS	Conc.	Units
Toluene	108-88-3	ND	ppbv
Tetrachloroethene	127-18-4	ND	ppbv
cis-1,2-Dichloroethene	156-59-2	ND	ppbv
trans-1,2-Dichloroethene	156-60-5	ND	ppbv
1,1,1-Trichloroethane	71-55-6	ND	ppbv
Vinyl Chloride	75-01-4	ND	ppbv
1,1-Dichloroethane	75-34-3	ND	ppbv
1,1-Dichloroethene	75-35-4	ND	ppbv
Trichloroethene	79-01-6	ND	ppbv
4-Bromofluorobenzene	460-00-4	99.00	% Recovery

Media Certification Report

Canister Number: 6L# 6L# 3729w/24hr# 100166

Can#: 95129-3729

Date : 02/12/14 10:35

Data File: o021133.d

www.airtoxics.com
1-800-985-5955

Name	CAS	Conc.	Units
Toluene	108-88-3	ND	ppbv
Tetrachloroethene	127-18-4	ND	ppbv
cis-1,2-Dichloroethene	156-59-2	ND	ppbv
trans-1,2-Dichloroethene	156-60-5	ND	ppbv
1,1,1-Trichloroethane	71-55-6	ND	ppbv
Vinyl Chloride	75-01-4	ND	ppbv
1,1-Dichloroethane	75-34-3	ND	ppbv
1,1-Dichloroethene	75-35-4	ND	ppbv
Trichloroethene	79-01-6	ND	ppbv
4-Bromofluorobenzene	460-00-4	100.00	% Recovery

Media Certification Report

Canister Number: 6L# 6L# 4387w/24hr# 40646

Can#: 95129-4387

Date : 02/11/14 23:16

Data File: o021115.d

www.airtoxics.com
1-800-985-5955

Name	CAS	Conc.	Units
Toluene	108-88-3	ND	ppbv
Tetrachloroethene	127-18-4	ND	ppbv
cis-1,2-Dichloroethene	156-59-2	ND	ppbv
trans-1,2-Dichloroethene	156-60-5	ND	ppbv
1,1,1-Trichloroethane	71-55-6	ND	ppbv
Vinyl Chloride	75-01-4	ND	ppbv
1,1-Dichloroethane	75-34-3	ND	ppbv
1,1-Dichloroethene	75-35-4	ND	ppbv
Trichloroethene	79-01-6	ND	ppbv
4-Bromofluorobenzene	460-00-4	97.00	% Recovery

Media Certification Report

Canister Number: 6L# 6L# 5594w/24hr# 40399

Can#: 95129-5594

Date : 02/12/14 0:46

Data File: o021118.d

www.airtoxics.com
1-800-985-5955

Name	CAS	Conc.	Units
Toluene	108-88-3	ND	ppbv
Tetrachloroethene	127-18-4	ND	ppbv
cis-1,2-Dichloroethene	156-59-2	ND	ppbv
trans-1,2-Dichloroethene	156-60-5	ND	ppbv
1,1,1-Trichloroethane	71-55-6	ND	ppbv
Vinyl Chloride	75-01-4	ND	ppbv
1,1-Dichloroethane	75-34-3	ND	ppbv
1,1-Dichloroethene	75-35-4	ND	ppbv
Trichloroethene	79-01-6	ND	ppbv
4-Bromofluorobenzene	460-00-4	103.00	% Recovery

Media Certification Report

Canister Number: 6L# 6L# 5626w/24hr# 30590

Can#: 95129-5626

Date : 02/11/14 22:35

Data File: o021114.d

www.airtoxics.com

1-800-985-5955

Name	CAS	Conc.	Units
Toluene	108-88-3	ND	ppbv
Tetrachloroethene	127-18-4	ND	ppbv
cis-1,2-Dichloroethene	156-59-2	ND	ppbv
trans-1,2-Dichloroethene	156-60-5	ND	ppbv
1,1,1-Trichloroethane	71-55-6	ND	ppbv
Vinyl Chloride	75-01-4	ND	ppbv
1,1-Dichloroethane	75-34-3	ND	ppbv
1,1-Dichloroethene	75-35-4	ND	ppbv
Trichloroethene	79-01-6	ND	ppbv
4-Bromofluorobenzene	460-00-4	95.00	% Recovery

Media Certification Report

Canister Number: 6L# 6L# 5664w/24hr# 40622

Can#: 95129-5664

Date : 02/11/14 18:02

Data File: o021105.d

www.airtoxics.com
1-800-985-5955

Name	CAS	Conc.	Units
Toluene	108-88-3	ND	ppbv
Tetrachloroethene	127-18-4	ND	ppbv
cis-1,2-Dichloroethene	156-59-2	ND	ppbv
trans-1,2-Dichloroethene	156-60-5	ND	ppbv
1,1,1-Trichloroethane	71-55-6	ND	ppbv
Vinyl Chloride	75-01-4	ND	ppbv
1,1-Dichloroethane	75-34-3	ND	ppbv
1,1-Dichloroethene	75-35-4	ND	ppbv
Trichloroethene	79-01-6	ND	ppbv
4-Bromofluorobenzene	460-00-4	99.00	% Recovery

Media Certification Report

Canister Number: 6L# 6L# 5767w/24hr# 40341

Can#: 95129-5767

Date : 02/12/14 4:19

Data File: o021125.d

www.airtoxics.com
1-800-985-5955

Name	CAS	Conc.	Units
Toluene	108-88-3	ND	ppbv
Tetrachloroethene	127-18-4	ND	ppbv
cis-1,2-Dichloroethene	156-59-2	ND	ppbv
trans-1,2-Dichloroethene	156-60-5	ND	ppbv
1,1,1-Trichloroethane	71-55-6	ND	ppbv
Vinyl Chloride	75-01-4	ND	ppbv
1,1-Dichloroethane	75-34-3	ND	ppbv
1,1-Dichloroethene	75-35-4	ND	ppbv
Trichloroethene	79-01-6	ND	ppbv
4-Bromofluorobenzene	460-00-4	102.00	% Recovery

Media Certification Report

Canister Number: 6L# 6L0046 w/24hr# 40028

Can#: 95129-6L0046

Date : 02/11/14 14:43

Data File: i021109sim.d

www.airtoxics.com

1-800-985-5955

Name	CAS	Conc.	Units
Toluene	108-88-3	ND	ppbv
Tetrachloroethene	127-18-4	ND	ppbv
cis-1,2-Dichloroethene	156-59-2	ND	ppbv
trans-1,2-Dichloroethene	156-60-5	ND	ppbv
Chloroform	67-66-3	ND	ppbv
1,1,1-Trichloroethane	71-55-6	ND	ppbv
Vinyl Chloride	75-01-4	ND	ppbv
1,1-Dichloroethane	75-34-3	ND	ppbv
1,1-Dichloroethene	75-35-4	ND	ppbv
Freon 113	76-13-1	ND	ppbv
Trichloroethene	79-01-6	ND	ppbv
1,2-Dichloroethane-d4	17060-07-0	94.00	% Recovery
Toluene-d8	2037-26-5	102.00	% Recovery
4-Bromofluorobenzene	460-00-4	96.00	% Recovery

www.airtoxics.com
1-800-985-5955

Media Certification Report

Canister Number: 6L# 6L# 9925w/24hr# 40968

Can#: 95129-9925

Date : 02/12/14 3:18

Data File: o021123.d

Name	CAS	Conc.	Units
Toluene	108-88-3	ND	ppbv
Tetrachloroethene	127-18-4	ND	ppbv
cis-1,2-Dichloroethene	156-59-2	ND	ppbv
trans-1,2-Dichloroethene	156-60-5	ND	ppbv
1,1,1-Trichloroethane	71-55-6	ND	ppbv
Vinyl Chloride	75-01-4	ND	ppbv
1,1-Dichloroethane	75-34-3	ND	ppbv
1,1-Dichloroethene	75-35-4	ND	ppbv
Trichloroethene	79-01-6	ND	ppbv
4-Bromofluorobenzene	460-00-4	102.00	% Recovery

Appendix C
Indoor Air Sampling Form –
Summa Canisters

INDOOR AIR SAMPLING FORM—SUMMA CANISTERS

Page 1 of __

Project and Task No.: 0201040.01SC
 Project Name: SMT
 Project Address: 19,000 Homestead

Sampled by: Cam / S m
 Date: 2/16/14 - 2/17/14
 Weather: Sunny & 65°

Sample ID	Date	Sample Type (indoor or ambient)	Summa Canister ID	Flow Controller ID	Analysis	Start Sampling		End Sampling	
						Time	Canister Vacuum	Time	Canister Vacuum
SMT-0A1-20140216	2/16/14	ambient	34233 ✓	30551	T015 SIM	1026	-30-29	1045	-5
SMT-0A2-20140216	2/16/14	ambient	5664 ✓	40069		1036	-30	1047	-3
SMT-0A3-20140216	2/16/14	indoor	05700 ✓	40207		1327	-30-29	1332	-5-6.5
SMT-0A4-20140216	2/16/14	indoor	34375 ✓	30553		1328	-30-29	1328	-5
SMT-0A5-20140216	2/16/14	indoor (F)	31426 ✓	40176		1330	-29	1213	-6.5
SMT-0A6-20140216	2/16/14	indoor	35134 ✓	40098		1331	-30	1211	0
SMT-0A7-20140216	2/16/14	indoor	9925 ✓	30592		1333	-30	1304	-6
SMT-0A8-20140216	2/16/14	indoor (F)	5767 ✓	40341		1317	-30	1347	-9.5
SMT-0A9-20140216	2/16/14	indoor	5594 ✓	40399		1335	-29	1257	0
SMT-0A10-20140216	2/16/14	indoor	34761 ✓	100339		1336	-29.5	1335	-6
SMT-0A11-20140216	2/16/14	indoor	34734 ✓	40234		1336	-30	1335	-5.5
SMT-0A12-20140216	2/16/14	indoor	12695 ✓	40622		1339	-30	1343	-9.5
SMT-0A13-20140216	2/16/14	indoor (F)	34497 ✓	40181		1340	-27	1253	-3.5
SMT-0A14-20140216	2/16/14	indoor (F)	33868 ✓	40131		1345	-29	1217	-6

Tubing volume/linear foot (in cc) calculated by: $95.76 \times [\text{tubing diameter (in cm)}^2]$

INDOOR AIR SAMPLING FORM—SUMMA CANISTERS

Page 1 of __

Project and Task No.: 02104-0201040.01SC

Project Name: SMT

Project Address: 19,000 Homestead

Sampled by: _____

Date: _____

Weather: _____

	Sample ID	Date	Sample Type (indoor or ambient)	Summa Canister ID	Flow Controller ID	Analysis	Start Sampling		End Sampling	
							Time	Canister Vacuum	Time	Canister Vacuum
SMT	IA09D-20140216	2/16/14	indoor	32114	✓ 100166	TS-15 SAM	1345	-30	1217	-65
SMT	IA12-20140216	2/16/14	indoor	21001	✓ 40574		1347	-30	1224	-7
SMT	IA13-20140216	2/16/14	indoor	4387	✓ 40028		1352	-30	1308	-7
SMT	IA14-20140216	2/16/14	indoor	1425	✓ 40496		1206	-30	1115	-7
✓ SMT	IA15-20140216	2/16/14	indoor	3729	✓ 40245		1204	-28	1102	-7
SMT	IA19-20140216	2/16/14	indoor	5626	✓ 30590		1213	-29	1151	-6
✓ SMT	IA16-20140216	2/16/14	indoor	34476	✓ 40406		1222	-30	1127	-7
SMT	IA16D-20140216	2/16/14	indoor	34459	✓ 40968		1222	-29	1127	-9
SMT	IA17-20140216	2/16/14	indoor	62844	✓ 40223		1230	-30	1137	-6.0
SMT	IA18-20140216	2/16/14	indoor	33776	✓ 40055		1323	-29	1134	-7.5
SMT	IA23-20140216	2/16/14	indoor	34027	✓ 40589		1240	-30	1159	-6.5
SMT	IA21-20140216	2/16/14	indoor	12936	✓ 30588		1244	-29	1205	-6
SMT	IA20-20140216	2/16/14	indoor	11887	✓ 40654		1250	-29	1148	-6
SMT	IA22-20140216	2/16/14	indoor	12010	✓ 40699		1258	-28	1111	-7.5

Tubing volume/linear foot (in cc) calculated by: $95.76 \times [\text{tubing diameter (in cm)} / 2]^2$

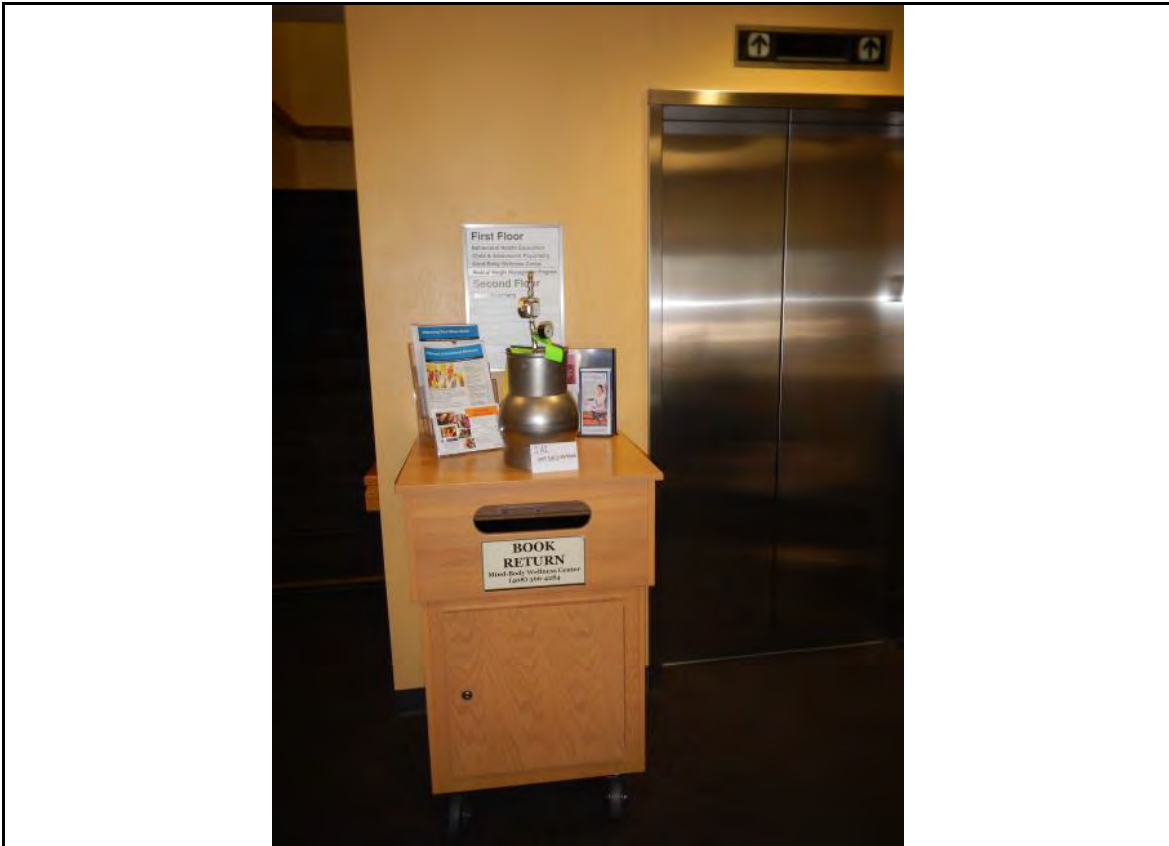
Appendix D
Sample Location Photo Log



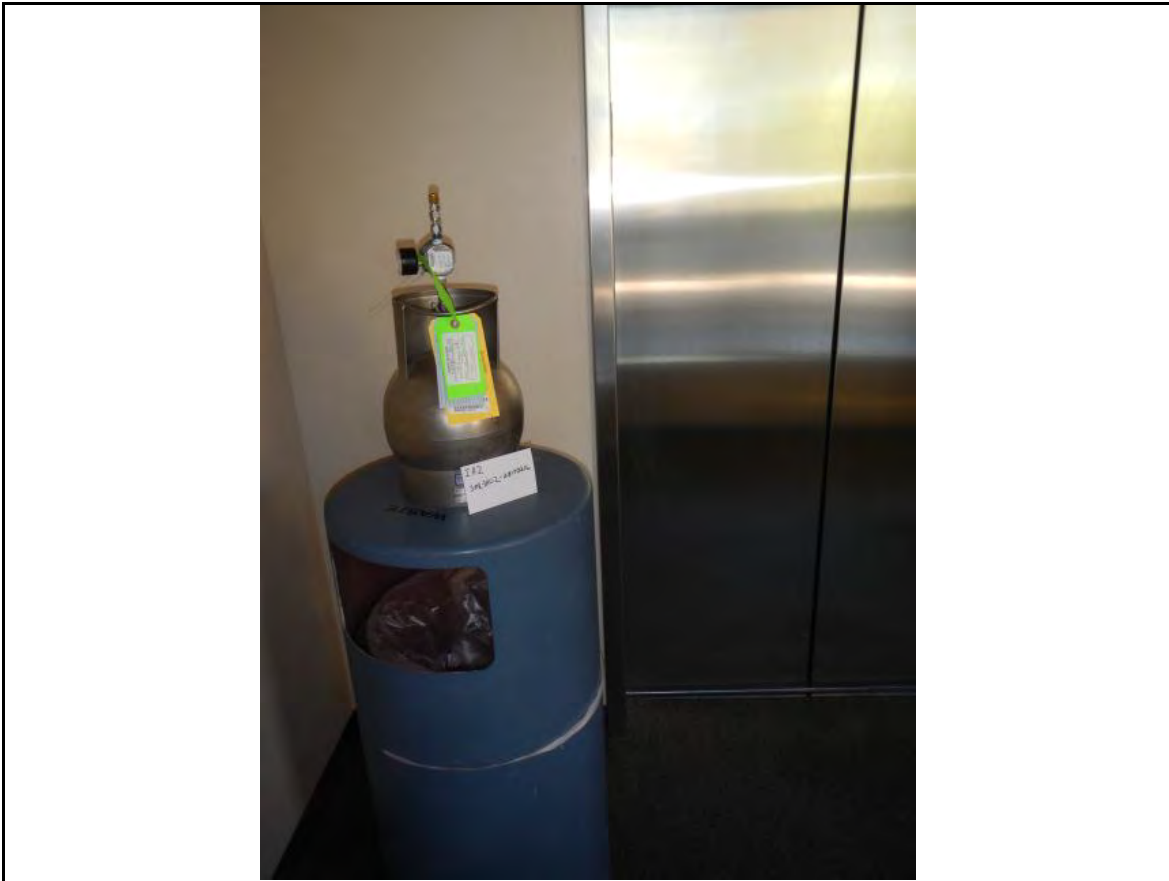
Photograph 1	SMI-OA1-20140216 ERM	SMI, Cupertino, CA



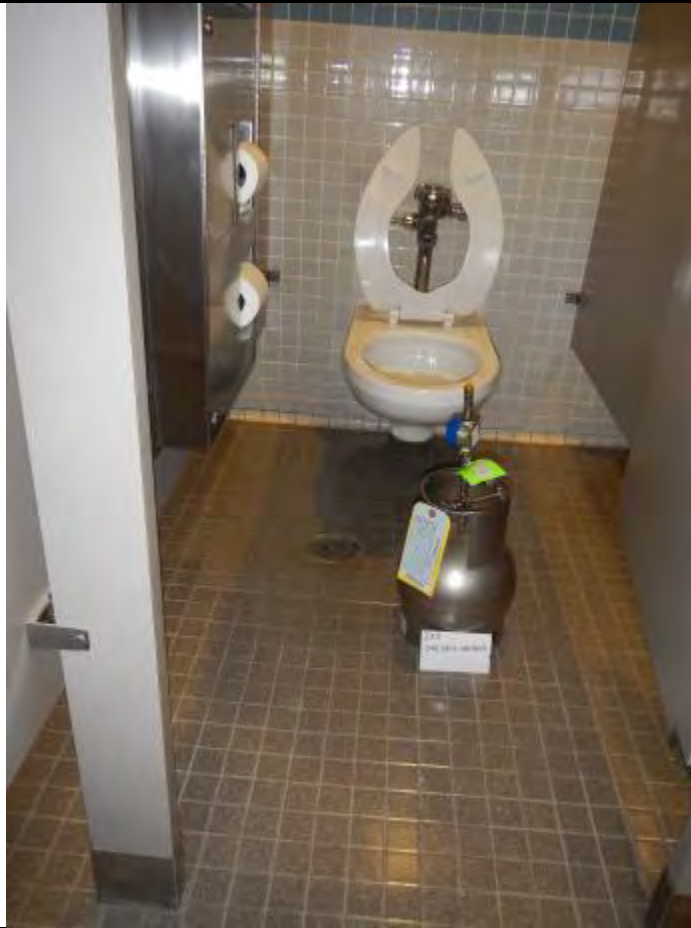
Photograph 2	SMI-0A2-20140216 ERM	SMI, Cupertino, CA



Photograph 3	SMI-IA01-20140216 ERM	SMI, Cupertino, CA
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Photograph 4	SMI-IA02-20140216 ERM	SMI, Cupertino, CA



Photograph 5

SMI-IA03-20140216

ERM

SMI,
Cupertino, CA



Photograph 6	SMI-IA04-20140216 ERM	SMI, Cupertino, CA
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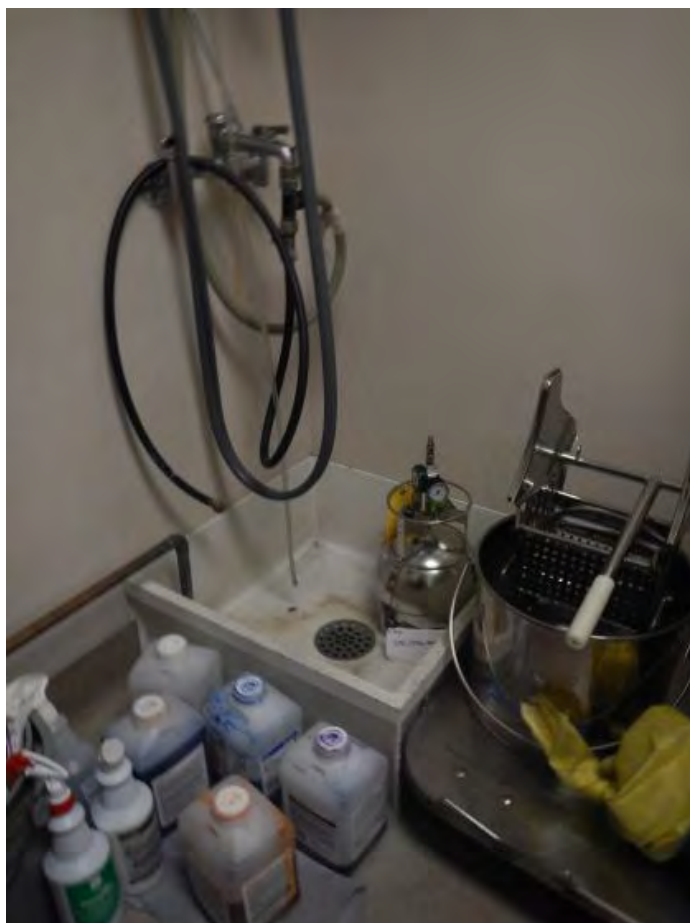


Photograph 7

SMI-IA05-20140216

ERM

SMI,
Cupertino, CA



Photograph 8

SMI-IA06-20140216

ERM

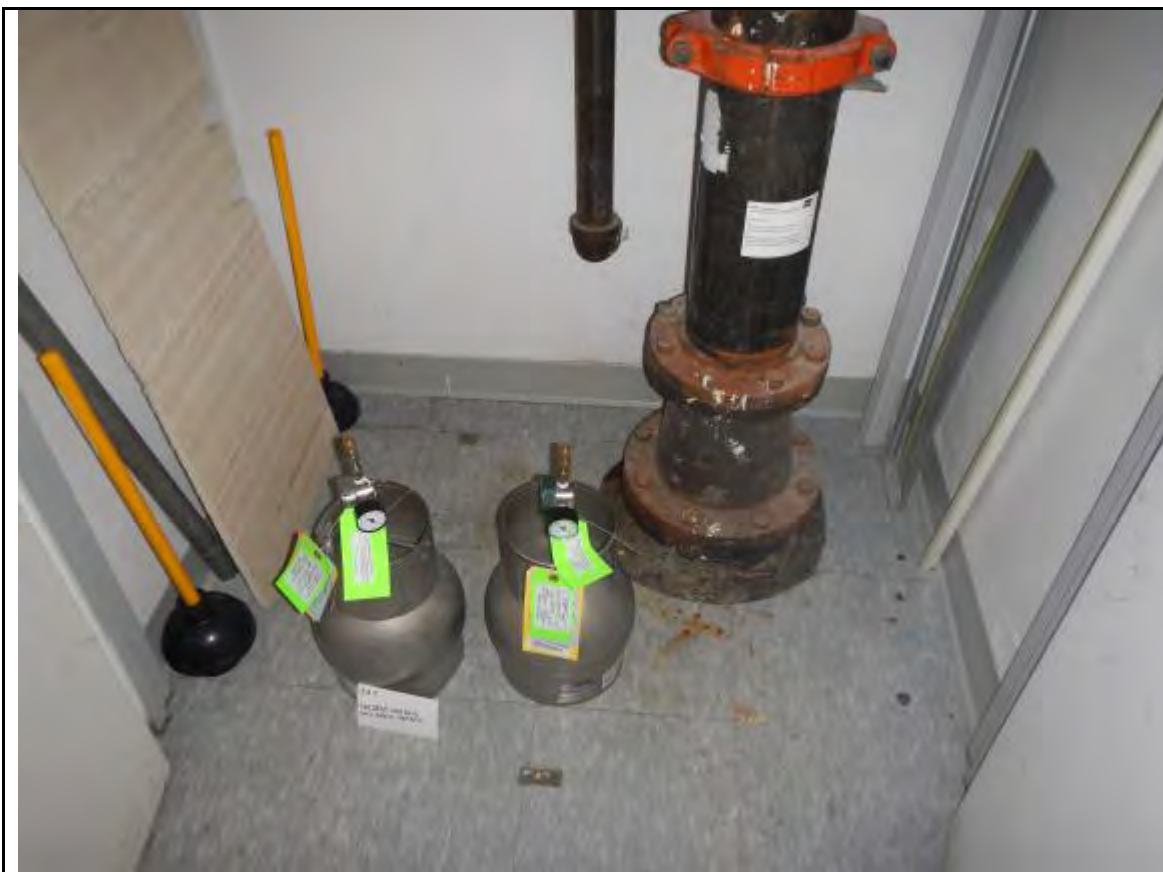
SMI,
Cupertino, CA



Photograph 9	SMI-IA07-20140216 ERM	SMI, Cupertino, CA
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Photograph 10	SMI-IA08-20140216 ERM	SMI, Cupertino, CA



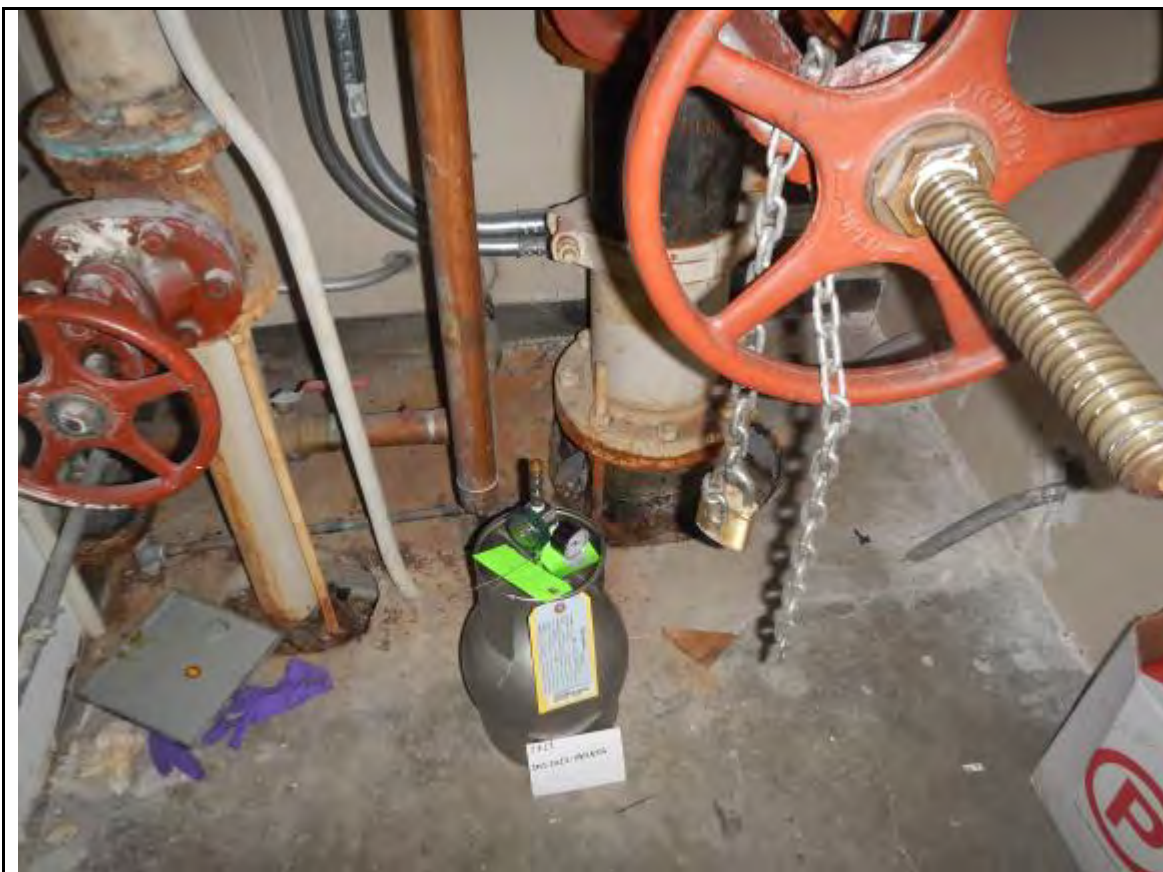
Photograph 11	SMI-IA09-20140216 ERM	SMI, Cupertino, CA
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Photograph 12	SMI-IA10-20140216 ERM	SMI, Cupertino, CA
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Photograph 13	SMI-IA11-20140216 ERM	SMI, Cupertino, CA
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Photograph 14	SMI-IA12-20140216 ERM	SMI, Cupertino, CA
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Photograph 15	SMI-IA13-20140216 ERM	SMI, Cupertino, CA
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Photograph 16

SMI-IA14-20140216

ERM

SMI,
Cupertino, CA



Photograph 17	SMI-IA15-20140216 ERM	SMI, Cupertino, CA
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Photograph 18	SMI-IA16-20140216 ERM	SMI, Cupertino, CA
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Photograph 19

SMI-IA17-20140216

ERM

SMI,
Cupertino, CA



Photograph 20

SMI-IA18-20140216

ERM

SMI,
Cupertino, CA



Photograph 21	SMI-IA19-20140216 ERM	SMI, Cupertino, CA
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Photograph 22	SMI-IA20-20140216 ERM	SMI, Cupertino, CA
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Photograph 23	SMI-IA21-20140216 ERM	SMI, Cupertino, CA
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Photograph 24	SMI-IA22-20140216 ERM	SMI, Cupertino, CA



Photograph 25	SMI-IA23-20140216 ERM	SMI, Cupertino, CA
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Appendix E
Laboratory Analytical Reports

3/5/2014

Mr. Conor McDonough
ERM-West
1277 Treat Blvd
Suite 500
Walnut Creek CA 94597

Project Name: SMI
Project #: 0201040.01SC
Workorder #: 1402298

Dear Mr. Conor McDonough

The following report includes the data for the above referenced project for sample(s) received on 2/19/2014 at Air Toxics Ltd.

The data and associated QC analyzed by Modified TO-15 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Air Toxics Ltd. for your air analysis needs. Air Toxics Ltd. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Kelly Buettner at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Kelly Buettner
Project Manager

WORK ORDER #: 1402298

Work Order Summary

CLIENT:	Mr. Conor McDonough ERM-West 1277 Treat Blvd Suite 500 Walnut Creek, CA 94597	BILL TO:	Mr. Conor McDonough ERM-West 1277 Treat Blvd Suite 500 Walnut Creek, CA 94597
PHONE:	925-946-0455	P.O. #	0201040.01SC
FAX:	925-946-9968	PROJECT #	0201040.01SC SMI
DATE RECEIVED:	02/19/2014	CONTACT:	Kelly Buettner
DATE COMPLETED:	03/05/2014		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	SMI-OA1-20140216	Modified TO-15	4.5 "Hg	5 psi
01B	SMI-OA1-20140216	Modified TO-15	4.5 "Hg	5 psi
02A	SMI-OA2-20140216	Modified TO-15	2.5 "Hg	5 psi
02B	SMI-OA2-20140216	Modified TO-15	2.5 "Hg	5 psi
03A	SMI-IA01-20140216	Modified TO-15	6.5 "Hg	5 psi
03B	SMI-IA01-20140216	Modified TO-15	6.5 "Hg	5 psi
04A	SMI-IA02-20140216	Modified TO-15	4.5 "Hg	5 psi
04B	SMI-IA02-20140216	Modified TO-15	4.5 "Hg	5 psi
05A	SMI-IA03-20140216	Modified TO-15	6.0 "Hg	5 psi
05B	SMI-IA03-20140216	Modified TO-15	6.0 "Hg	5 psi
06A	SMI-IA04-20140216	Modified TO-15	0.0 "Hg	5 psi
06B	SMI-IA04-20140216	Modified TO-15	0.0 "Hg	5 psi
07A	SMI-IA05-20140216	Modified TO-15	6.0 "Hg	5 psi
07B	SMI-IA05-20140216	Modified TO-15	6.0 "Hg	5 psi
08A	SMI-IA06-20140216	Modified TO-15	9.5 "Hg	5 psi
08B	SMI-IA06-20140216	Modified TO-15	9.5 "Hg	5 psi
09A	SMI-IA07-20140216	Modified TO-15	0.0 "Hg	5 psi
09B	SMI-IA07-20140216	Modified TO-15	0.0 "Hg	5 psi
10A	SMI-IA08-20140216	Modified TO-15	6.0 "Hg	5 psi
10B	SMI-IA08-20140216	Modified TO-15	6.0 "Hg	5 psi
11A	Lab Blank	Modified TO-15	NA	NA
11B	Lab Blank	Modified TO-15	NA	NA
11C	Lab Blank	Modified TO-15	NA	NA

Continued on next page

WORK ORDER #: 1402298

Work Order Summary

CLIENT:	Mr. Conor McDonough ERM-West 1277 Treat Blvd Suite 500 Walnut Creek, CA 94597	BILL TO:	Mr. Conor McDonough ERM-West 1277 Treat Blvd Suite 500 Walnut Creek, CA 94597
PHONE:	925-946-0455	P.O. #	0201040.01SC
FAX:	925-946-9968	PROJECT #	0201040.01SC SMI
DATE RECEIVED:	02/19/2014	CONTACT:	Kelly Buettner
DATE COMPLETED:	03/05/2014		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
11D	Lab Blank	Modified TO-15	NA	NA
12A	CCV	Modified TO-15	NA	NA
12B	CCV	Modified TO-15	NA	NA
12C	CCV	Modified TO-15	NA	NA
12D	CCV	Modified TO-15	NA	NA
13A	LCS	Modified TO-15	NA	NA
13AA	LCSD	Modified TO-15	NA	NA
13B	LCS	Modified TO-15	NA	NA
13BB	LCSD	Modified TO-15	NA	NA
13C	LCS	Modified TO-15	NA	NA
13CC	LCSD	Modified TO-15	NA	NA
13D	LCS	Modified TO-15	NA	NA
13DD	LCSD	Modified TO-15	NA	NA

CERTIFIED BY:



Technical Director

DATE: 03/05/14

Certification numbers: AZ Licensure AZ0775, CA NELAP - 12282CA, NJ NELAP - CA016, NY NELAP - 11291, TX NELAP - T104704434-13-6, UT NELAP CA009332013-4, VA NELAP - 460197, WA NELAP - C935

Name of Accrediting Agency: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)

Accreditation number: CA300005, Effective date: 10/18/2013, Expiration date: 10/17/2014.

Eurofins Air Toxics Inc., certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except in full, without the written approval of Eurofins Air Toxics, Inc.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 9563

(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020



LABORATORY NARRATIVE
Modified TO-15 Full Scan/SIM
ERM-West
Workorder# 1402298

Ten 6 Liter Summa Canister (SIM Certified) samples were received on February 19, 2014. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the Full Scan and SIM acquisition modes. The method involves concentrating up to 1.0 liters of air. The concentrated aliquot is then flash vaporized and swept through a water management system to remove water vapor. Following dehumidification, the sample passes directly into the GC/MS for analysis.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the ATL modifications.

<i>Requirement</i>	<i>TO-15</i>	<i>ATL Modifications</i>
ICAL %RSD acceptance criteria	$\leq 30\%$ RSD with 2 compounds allowed out to $< 40\%$ RSD	For Full Scan: 30% RSD with 4 compounds allowed out to $< 40\%$ RSD For SIM: Project specific; default criteria is $\leq 30\%$ RSD with 10% of compounds allowed out to $< 40\%$ RSD
Daily Calibration	$\pm 30\%$ Difference	For Full Scan: $\leq 30\%$ Difference with four allowed out up to $\leq 40\%$; flag and narrate outliers For SIM: Project specific; default criteria is $\leq 30\%$ Difference with 10% of compounds allowed out up to $\leq 40\%$; flag and narrate outliers
Blank and standards	Zero air	Nitrogen
Method Detection Limit	Follow 40CFR Pt.136 App. B	The MDL met all relevant requirements in Method TO-15 (statistical MDL less than the LOQ). The concentration of the spiked replicate may have exceeded 10X the calculated MDL in some cases

Receiving Notes

Despite the use of flow controllers for sample collection, the final canister vacuums for samples SMI-IA04-20140216 and SMI-IA07-20140216 were measured at ambient pressure in the field. These ambient pressure readings were confirmed by the laboratory upon sample receipt.

Analytical Notes

The results for each sample in this report were acquired from two separate data files originating from the same analytical run. The two data files have the same base file name and are differentiated with a "sim" extension on the SIM data file.

Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

Summary of Detected Compounds

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

Client Sample ID: SMI-OA1-20140216

Lab ID#: 1402298-01A

No Detections Were Found.

Client Sample ID: SMI-OA1-20140216

Lab ID#: 1402298-01B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Toluene	0.032	0.30	0.12	1.2

Client Sample ID: SMI-OA2-20140216

Lab ID#: 1402298-02A

No Detections Were Found.

Client Sample ID: SMI-OA2-20140216

Lab ID#: 1402298-02B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Toluene	0.029	0.29	0.11	1.1

Client Sample ID: SMI-IA01-20140216

Lab ID#: 1402298-03A

No Detections Were Found.

Client Sample ID: SMI-IA01-20140216

Lab ID#: 1402298-03B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	0.034	0.048	0.18	0.26
Toluene	0.034	0.37	0.13	1.4

Client Sample ID: SMI-IA02-20140216

Lab ID#: 1402298-04A

No Detections Were Found.

Summary of Detected Compounds

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

Client Sample ID: SMI-IA02-20140216

Lab ID#: 1402298-04B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.032	0.035	0.17	0.19
Trichloroethene	0.032	0.045	0.17	0.24
Toluene	0.032	0.40	0.12	1.5

Client Sample ID: SMI-IA03-20140216

Lab ID#: 1402298-05A

No Detections Were Found.

Client Sample ID: SMI-IA03-20140216

Lab ID#: 1402298-05B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	0.034	0.052	0.18	0.28
Toluene	0.034	0.46	0.13	1.7

Client Sample ID: SMI-IA04-20140216

Lab ID#: 1402298-06A

No Detections Were Found.

Client Sample ID: SMI-IA04-20140216

Lab ID#: 1402298-06B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.027	0.030	0.15	0.16
Trichloroethene	0.027	0.076	0.14	0.41
Toluene	0.027	0.43	0.10	1.6

Client Sample ID: SMI-IA05-20140216

Lab ID#: 1402298-07A

No Detections Were Found.

Summary of Detected Compounds

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

Client Sample ID: SMI-IA05-20140216

Lab ID#: 1402298-07B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.034	0.036	0.18	0.20
Trichloroethene	0.034	0.084	0.18	0.45
Toluene	0.034	0.40	0.13	1.5

Client Sample ID: SMI-IA06-20140216

Lab ID#: 1402298-08A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Chloroform	0.20	0.96	0.96	4.7

Client Sample ID: SMI-IA06-20140216

Lab ID#: 1402298-08B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.039	0.21	0.21	1.2
Toluene	0.039	0.47	0.15	1.8
Tetrachloroethene	0.039	0.16	0.26	1.1

Client Sample ID: SMI-IA07-20140216

Lab ID#: 1402298-09A

No Detections Were Found.

Client Sample ID: SMI-IA07-20140216

Lab ID#: 1402298-09B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Dichloroethene	0.013	0.014	0.053	0.056
1,1,1-Trichloroethane	0.027	0.082	0.15	0.45
Toluene	0.027	0.33	0.10	1.3
Tetrachloroethene	0.027	0.029	0.18	0.20

Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

Client Sample ID: SMI-IA08-20140216

Lab ID#: 1402298-10A

No Detections Were Found.

Client Sample ID: SMI-IA08-20140216

Lab ID#: 1402298-10B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Toluene	0.034	0.30	0.13	1.1



Air Toxics

Client Sample ID: SMI-OA1-20140216

Lab ID#: 1402298-01A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	c022607	Date of Collection: 2/17/14 10:45:00 AM
Dil. Factor:	1.58	Date of Analysis: 2/26/14 12:50 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 113	0.16	Not Detected	1.2	Not Detected
Chloroform	0.16	Not Detected	0.77	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	96	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	107	70-130



Air Toxics

Client Sample ID: SMI-OA1-20140216

Lab ID#: 1402298-01B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	c022607sim	Date of Collection:	2/17/14 10:45:00 AM
Dil. Factor:	1.58	Date of Analysis:	2/26/14 12:50 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.016	Not Detected	0.040	Not Detected
1,1-Dichloroethene	0.016	Not Detected	0.063	Not Detected
1,1-Dichloroethane	0.032	Not Detected	0.13	Not Detected
cis-1,2-Dichloroethene	0.032	Not Detected	0.12	Not Detected
1,1,1-Trichloroethane	0.032	Not Detected	0.17	Not Detected
Trichloroethene	0.032	Not Detected	0.17	Not Detected
Toluene	0.032	0.30	0.12	1.2
Tetrachloroethene	0.032	Not Detected	0.21	Not Detected
trans-1,2-Dichloroethene	0.16	Not Detected	0.63	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	97	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	107	70-130



Air Toxics

Client Sample ID: SMI-OA2-20140216

Lab ID#: 1402298-02A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	c022515	Date of Collection: 2/17/14 10:47:00 AM
Dil. Factor:	1.46	Date of Analysis: 2/25/14 08:33 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 113	0.15	Not Detected	1.1	Not Detected
Chloroform	0.15	Not Detected	0.71	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	101	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	102	70-130



Air Toxics

Client Sample ID: SMI-OA2-20140216

Lab ID#: 1402298-02B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	c022515sim	Date of Collection:	2/17/14 10:47:00 AM
Dil. Factor:	1.46	Date of Analysis:	2/25/14 08:33 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.015	Not Detected	0.037	Not Detected
1,1-Dichloroethene	0.015	Not Detected	0.058	Not Detected
1,1-Dichloroethane	0.029	Not Detected	0.12	Not Detected
cis-1,2-Dichloroethene	0.029	Not Detected	0.12	Not Detected
1,1,1-Trichloroethane	0.029	Not Detected	0.16	Not Detected
Trichloroethene	0.029	Not Detected	0.16	Not Detected
Toluene	0.029	0.29	0.11	1.1
Tetrachloroethene	0.029	Not Detected	0.20	Not Detected
trans-1,2-Dichloroethene	0.15	Not Detected	0.58	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	101	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	104	70-130



Air Toxics

Client Sample ID: SMI-IA01-20140216

Lab ID#: 1402298-03A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	c022516	Date of Collection:	2/17/14 1:52:00 PM
Dil. Factor:	1.71	Date of Analysis:	2/25/14 09:16 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 113	0.17	Not Detected	1.3	Not Detected
Chloroform	0.17	Not Detected	0.83	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	101	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	99	70-130



Air Toxics

Client Sample ID: SMI-IA01-20140216

Lab ID#: 1402298-03B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	c022516sim	Date of Collection:	2/17/14 1:52:00 PM
Dil. Factor:	1.71	Date of Analysis:	2/25/14 09:16 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.017	Not Detected	0.044	Not Detected
1,1-Dichloroethene	0.017	Not Detected	0.068	Not Detected
1,1-Dichloroethane	0.034	Not Detected	0.14	Not Detected
cis-1,2-Dichloroethene	0.034	Not Detected	0.14	Not Detected
1,1,1-Trichloroethane	0.034	Not Detected	0.19	Not Detected
Trichloroethene	0.034	0.048	0.18	0.26
Toluene	0.034	0.37	0.13	1.4
Tetrachloroethene	0.034	Not Detected	0.23	Not Detected
trans-1,2-Dichloroethene	0.17	Not Detected	0.68	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	101	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	102	70-130



Air Toxics

Client Sample ID: SMI-IA02-20140216

Lab ID#: 1402298-04A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	c022517	Date of Collection:	2/17/14 1:28:00 PM
Dil. Factor:	1.58	Date of Analysis:	2/25/14 09:54 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 113	0.16	Not Detected	1.2	Not Detected
Chloroform	0.16	Not Detected	0.77	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	103	70-130



Air Toxics

Client Sample ID: SMI-IA02-20140216

Lab ID#: 1402298-04B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	c022517sim	Date of Collection:	2/17/14 1:28:00 PM
Dil. Factor:	1.58	Date of Analysis:	2/25/14 09:54 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.016	Not Detected	0.040	Not Detected
1,1-Dichloroethene	0.016	Not Detected	0.063	Not Detected
1,1-Dichloroethane	0.032	Not Detected	0.13	Not Detected
cis-1,2-Dichloroethene	0.032	Not Detected	0.12	Not Detected
1,1,1-Trichloroethane	0.032	0.035	0.17	0.19
Trichloroethene	0.032	0.045	0.17	0.24
Toluene	0.032	0.40	0.12	1.5
Tetrachloroethene	0.032	Not Detected	0.21	Not Detected
trans-1,2-Dichloroethene	0.16	Not Detected	0.63	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	101	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	104	70-130



Air Toxics

Client Sample ID: SMI-IA03-20140216

Lab ID#: 1402298-05A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	c022518	Date of Collection:	2/17/14 12:13:00 PM
Dil. Factor:	1.68	Date of Analysis:	2/25/14 10:33 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 113	0.17	Not Detected	1.3	Not Detected
Chloroform	0.17	Not Detected	0.82	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	101	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	96	70-130



Air Toxics

Client Sample ID: SMI-IA03-20140216

Lab ID#: 1402298-05B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	c022518sim	Date of Collection:	2/17/14 12:13:00 PM
Dil. Factor:	1.68	Date of Analysis:	2/25/14 10:33 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.017	Not Detected	0.043	Not Detected
1,1-Dichloroethene	0.017	Not Detected	0.067	Not Detected
1,1-Dichloroethane	0.034	Not Detected	0.14	Not Detected
cis-1,2-Dichloroethene	0.034	Not Detected	0.13	Not Detected
1,1,1-Trichloroethane	0.034	Not Detected	0.18	Not Detected
Trichloroethene	0.034	0.052	0.18	0.28
Toluene	0.034	0.46	0.13	1.7
Tetrachloroethene	0.034	Not Detected	0.23	Not Detected
trans-1,2-Dichloroethene	0.17	Not Detected	0.67	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	101	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	100	70-130



Air Toxics

Client Sample ID: SMI-IA04-20140216

Lab ID#: 1402298-06A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	c022519	Date of Collection:	2/17/14 12:11:00 PM
Dil. Factor:	1.34	Date of Analysis:	2/26/14 06:43 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 113	0.13	Not Detected	1.0	Not Detected
Chloroform	0.13	Not Detected	0.65	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	99	70-130



Air Toxics

Client Sample ID: SMI-IA04-20140216

Lab ID#: 1402298-06B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	c022519sim	Date of Collection: 2/17/14 12:11:00 PM
Dil. Factor:	1.34	Date of Analysis: 2/26/14 06:43 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.013	Not Detected	0.034	Not Detected
1,1-Dichloroethene	0.013	Not Detected	0.053	Not Detected
1,1-Dichloroethane	0.027	Not Detected	0.11	Not Detected
cis-1,2-Dichloroethene	0.027	Not Detected	0.11	Not Detected
1,1,1-Trichloroethane	0.027	0.030	0.15	0.16
Trichloroethene	0.027	0.076	0.14	0.41
Toluene	0.027	0.43	0.10	1.6
Tetrachloroethene	0.027	Not Detected	0.18	Not Detected
trans-1,2-Dichloroethene	0.13	Not Detected	0.53	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	107	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	99	70-130



Air Toxics

Client Sample ID: SMI-IA05-20140216

Lab ID#: 1402298-07A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	c022520	Date of Collection:	2/17/14 1:04:00 PM
Dil. Factor:	1.68	Date of Analysis:	2/26/14 07:34 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 113	0.17	Not Detected	1.3	Not Detected
Chloroform	0.17	Not Detected	0.82	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	96	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	100	70-130



Air Toxics

Client Sample ID: SMI-IA05-20140216

Lab ID#: 1402298-07B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	c022520sim	Date of Collection:	2/17/14 1:04:00 PM
Dil. Factor:	1.68	Date of Analysis:	2/26/14 07:34 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.017	Not Detected	0.043	Not Detected
1,1-Dichloroethene	0.017	Not Detected	0.067	Not Detected
1,1-Dichloroethane	0.034	Not Detected	0.14	Not Detected
cis-1,2-Dichloroethene	0.034	Not Detected	0.13	Not Detected
1,1,1-Trichloroethane	0.034	0.036	0.18	0.20
Trichloroethene	0.034	0.084	0.18	0.45
Toluene	0.034	0.40	0.13	1.5
Tetrachloroethene	0.034	Not Detected	0.23	Not Detected
trans-1,2-Dichloroethene	0.17	Not Detected	0.67	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	103	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	101	70-130



Air Toxics

Client Sample ID: SMI-IA06-20140216

Lab ID#: 1402298-08A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	c022608	Date of Collection:	2/17/14 1:47:00 PM
Dil. Factor:	1.96	Date of Analysis:	2/26/14 01:31 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 113	0.20	Not Detected	1.5	Not Detected
Chloroform	0.20	0.96	0.96	4.7

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	93	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	95	70-130



Air Toxics

Client Sample ID: SMI-IA06-20140216

Lab ID#: 1402298-08B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	c022608sim	Date of Collection: 2/17/14 1:47:00 PM
Dil. Factor:	1.96	Date of Analysis: 2/26/14 01:31 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.020	Not Detected	0.050	Not Detected
1,1-Dichloroethene	0.020	Not Detected	0.078	Not Detected
1,1-Dichloroethane	0.039	Not Detected	0.16	Not Detected
cis-1,2-Dichloroethene	0.039	Not Detected	0.16	Not Detected
1,1,1-Trichloroethane	0.039	0.21	0.21	1.2
Trichloroethene	0.039	Not Detected	0.21	Not Detected
Toluene	0.039	0.47	0.15	1.8
Tetrachloroethene	0.039	0.16	0.26	1.1
trans-1,2-Dichloroethene	0.20	Not Detected	0.78	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	98	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	101	70-130



Air Toxics

Client Sample ID: SMI-IA07-20140216

Lab ID#: 1402298-09A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	c022609	Date of Collection:	2/17/14 12:57:00 PM
Dil. Factor:	1.34	Date of Analysis:	2/26/14 02:20 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 113	0.13	Not Detected	1.0	Not Detected
Chloroform	0.13	Not Detected	0.65	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	93	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	101	70-130



Air Toxics

Client Sample ID: SMI-IA07-20140216

Lab ID#: 1402298-09B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	c022609sim	Date of Collection: 2/17/14 12:57:00 PM
Dil. Factor:	1.34	Date of Analysis: 2/26/14 02:20 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.013	Not Detected	0.034	Not Detected
1,1-Dichloroethene	0.013	0.014	0.053	0.056
1,1-Dichloroethane	0.027	Not Detected	0.11	Not Detected
cis-1,2-Dichloroethene	0.027	Not Detected	0.11	Not Detected
1,1,1-Trichloroethane	0.027	0.082	0.15	0.45
Trichloroethene	0.027	Not Detected	0.14	Not Detected
Toluene	0.027	0.33	0.10	1.3
Tetrachloroethene	0.027	0.029	0.18	0.20
trans-1,2-Dichloroethene	0.13	Not Detected	0.53	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	95	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	103	70-130



Air Toxics

Client Sample ID: SMI-IA08-20140216

Lab ID#: 1402298-10A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	c022610	Date of Collection:	2/17/14 1:35:00 PM
Dil. Factor:	1.68	Date of Analysis:	2/26/14 03:03 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 113	0.17	Not Detected	1.3	Not Detected
Chloroform	0.17	Not Detected	0.82	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	106	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	99	70-130



Air Toxics

Client Sample ID: SMI-IA08-20140216

Lab ID#: 1402298-10B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	c022610sim	Date of Collection:	2/17/14 1:35:00 PM
Dil. Factor:	1.68	Date of Analysis:	2/26/14 03:03 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.017	Not Detected	0.043	Not Detected
1,1-Dichloroethene	0.017	Not Detected	0.067	Not Detected
1,1-Dichloroethane	0.034	Not Detected	0.14	Not Detected
cis-1,2-Dichloroethene	0.034	Not Detected	0.13	Not Detected
1,1,1-Trichloroethane	0.034	Not Detected	0.18	Not Detected
Trichloroethene	0.034	Not Detected	0.18	Not Detected
Toluene	0.034	0.30	0.13	1.1
Tetrachloroethene	0.034	Not Detected	0.23	Not Detected
trans-1,2-Dichloroethene	0.17	Not Detected	0.67	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	107	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	101	70-130



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1402298-11A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	c022506	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 2/25/14 11:48 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 113	0.10	Not Detected	0.77	Not Detected
Chloroform	0.10	Not Detected	0.49	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	97	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	96	70-130



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1402298-11B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	c022506sim	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 2/25/14 11:48 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.010	Not Detected	0.026	Not Detected
1,1-Dichloroethene	0.010	Not Detected	0.040	Not Detected
1,1-Dichloroethane	0.020	Not Detected	0.081	Not Detected
cis-1,2-Dichloroethene	0.020	Not Detected	0.079	Not Detected
1,1,1-Trichloroethane	0.020	Not Detected	0.11	Not Detected
Trichloroethene	0.020	Not Detected	0.11	Not Detected
Toluene	0.020	Not Detected	0.075	Not Detected
Tetrachloroethene	0.020	Not Detected	0.14	Not Detected
trans-1,2-Dichloroethene	0.10	Not Detected	0.40	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	98	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	100	70-130



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1402298-11C

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	c022606	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 2/26/14 11:59 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 113	0.10	Not Detected	0.77	Not Detected
Chloroform	0.10	Not Detected	0.49	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	94	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	98	70-130



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1402298-11D

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	c022606sim	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 2/26/14 11:59 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.010	Not Detected	0.026	Not Detected
1,1-Dichloroethene	0.010	Not Detected	0.040	Not Detected
1,1-Dichloroethane	0.020	Not Detected	0.081	Not Detected
cis-1,2-Dichloroethene	0.020	Not Detected	0.079	Not Detected
1,1,1-Trichloroethane	0.020	Not Detected	0.11	Not Detected
Trichloroethene	0.020	Not Detected	0.11	Not Detected
Toluene	0.020	Not Detected	0.075	Not Detected
Tetrachloroethene	0.020	Not Detected	0.14	Not Detected
trans-1,2-Dichloroethene	0.10	Not Detected	0.40	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	98	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	102	70-130

Client Sample ID: CCV

Lab ID#: 1402298-12A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	c022502	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 2/25/14 08:36 AM

Compound	%Recovery
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Freon 113	104
Chloroform	104

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	96	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	112	70-130

Client Sample ID: CCV

Lab ID#: 1402298-12B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	c022502sim	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 2/25/14 08:36 AM

Compound	%Recovery
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Vinyl Chloride	92
1,1-Dichloroethene	106
1,1-Dichloroethane	105
cis-1,2-Dichloroethene	110
1,1,1-Trichloroethane	110
Trichloroethene	103
Toluene	105
Tetrachloroethene	110
trans-1,2-Dichloroethene	107

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	96	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	108	70-130



Air Toxics

Client Sample ID: CCV

Lab ID#: 1402298-12C

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	c022602	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 2/26/14 08:52 AM

Compound	%Recovery
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Freon 113	104
Chloroform	102

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	91	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	102	70-130

Client Sample ID: CCV

Lab ID#: 1402298-12D

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	c022602sim	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 2/26/14 08:52 AM

Compound	%Recovery
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Vinyl Chloride	89
1,1-Dichloroethene	106
1,1-Dichloroethane	104
cis-1,2-Dichloroethene	109
1,1,1-Trichloroethane	109
Trichloroethene	103
Toluene	105
Tetrachloroethene	110
trans-1,2-Dichloroethene	106

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	96	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	107	70-130



Air Toxics

Client Sample ID: LCS

Lab ID#: 1402298-13A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	c022503	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 2/25/14 09:25 AM

Compound	%Recovery	Method Limits
Freon 113	122	70-130
Chloroform	107	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	91	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	103	70-130



Air Toxics

Client Sample ID: LCSD

Lab ID#: 1402298-13AA

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	c022504	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 2/25/14 10:07 AM

Compound	%Recovery	Method Limits
Freon 113	124	70-130
Chloroform	108	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	90	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	107	70-130

Client Sample ID: LCS

Lab ID#: 1402298-13B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	c022503sim	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 2/25/14 09:25 AM

Compound	%Recovery	Method Limits
Vinyl Chloride	94	70-130
1,1-Dichloroethene	121	70-130
1,1-Dichloroethane	109	70-130
cis-1,2-Dichloroethene	127	70-130
1,1,1-Trichloroethane	110	70-130
Trichloroethene	107	70-130
Toluene	108	70-130
Tetrachloroethene	112	70-130
trans-1,2-Dichloroethene	94	60-140

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	92	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	108	70-130



Air Toxics

Client Sample ID: LCSD

Lab ID#: 1402298-13BB

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name: c022504sim

Date of Collection: NA

Dil. Factor: 1.00

Date of Analysis: 2/25/14 10:07 AM

Compound	%Recovery	Method Limits
Vinyl Chloride	94	70-130
1,1-Dichloroethene	122	70-130
1,1-Dichloroethane	110	70-130
cis-1,2-Dichloroethene	129	70-130
1,1,1-Trichloroethane	111	70-130
Trichloroethene	108	70-130
Toluene	111	70-130
Tetrachloroethene	112	70-130
trans-1,2-Dichloroethene	95	60-140

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	92	70-130
Toluene-d8	105	70-130
4-Bromofluorobenzene	111	70-130



Air Toxics

Client Sample ID: LCS

Lab ID#: 1402298-13C

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name: c022603
Dil. Factor: 1.00

Date of Collection: NA
Date of Analysis: 2/26/14 09:37 AM

Compound	%Recovery	Method Limits
Freon 113	119	70-130
Chloroform	105	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	88	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	104	70-130



Air Toxics

Client Sample ID: LCSD

Lab ID#: 1402298-13CC

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	c022604	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 2/26/14 10:19 AM

Compound	%Recovery	Method Limits
Freon 113	127	70-130
Chloroform	109	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	92	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	104	70-130

Client Sample ID: LCS

Lab ID#: 1402298-13D

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	c022603sim	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 2/26/14 09:37 AM

Compound	%Recovery	Method Limits
Vinyl Chloride	94	70-130
1,1-Dichloroethene	123	70-130
1,1-Dichloroethane	111	70-130
cis-1,2-Dichloroethene	128	70-130
1,1,1-Trichloroethane	112	70-130
Trichloroethene	108	70-130
Toluene	109	70-130
Tetrachloroethene	113	70-130
trans-1,2-Dichloroethene	95	60-140

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	93	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	106	70-130



Air Toxics

Client Sample ID: LCSD

Lab ID#: 1402298-13DD

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name: c022604sim

Date of Collection: NA

Dil. Factor: 1.00

Date of Analysis: 2/26/14 10:19 AM

Compound	%Recovery	Method Limits
Vinyl Chloride	92	70-130
1,1-Dichloroethene	122	70-130
1,1-Dichloroethane	109	70-130
cis-1,2-Dichloroethene	127	70-130
1,1,1-Trichloroethane	111	70-130
Trichloroethene	108	70-130
Toluene	109	70-130
Tetrachloroethene	113	70-130
trans-1,2-Dichloroethene	94	60-140

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	92	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	106	70-130



Air Toxics

Sample Transportation Notice

Relinquishing signature on this document indicates that sample is being shipped in compliance with all applicable local, State, Federal, national, and international laws, regulations and ordinances of any kind. Air Toxics Limited assumes no liability with respect to the collection, handling or shipping of these samples. Relinquishing signature also indicates agreement to hold harmless, defend, and indemnify Air Toxics Limited against any claim, demand, or action, of any kind, related to the collection, handling, or shipping of samples. D.O.T. Hotline (800) 467-4922

180 BLUE RAVINE ROAD, SUITE B
FOLSOM, CA 95630-4719
(916) 985-1000 FAX (916) 985-1020

Page 1 of 3

Project Manager

Heather Butcher

Collected by: (Print and Sign)

Gar McDevaney

Company

ENM-West

Email

Address 1237 Treat Blvd. City Walnut Creek State CA Zip 94599

Phone (925) 946-0955

Fax

Project Info:

P.O. #

Project # 0201040.01 SC

Project Name

SMT

Turn Around Time:

☒ Normal

☐ Rush

Pressurized by:

Date:

Pressurization Gas:

specify

N₂

He

Lab I.D.	Field Sample I.D. (Location)	Can #	Date of Collection	Time of Collection	Analyses Requested	Canister Pressure/Vacuum			
						Initial	Final	Receipt	Final (psi)
01A	SMT-OA1-20140216	34233	02/14/14	1825/1045	TO 15 SIM	-29	-5		
02A	SMT-OA2-20140216	5664	02/14/14	1836/1047		-30	-3		
03A	SMT-IA01-20140216	05700		1327/1352		-30	-6.5		
04A	SMT-IA02-20140216	34375		1328/1328		-29	-5		
05A	SMT-IA03-20140216	31426		1330/1213		-29	-6.5		
06A	SMT-IA04-20140216	35134		1331/1211		-30	0		
07A	SMT-IA05-20140216	9925		1333/1304		-30	-6		
08A	SMT-IA06-20140216	5767		1317/1347		-30	-9.5		
09A	SMT-IA07-20140216	5594		1335/1257		-29	0		
10A	SMT-IA08-20140216	34761		1337/1335		-29.5	-6		
Relinquished by: (signature)			Date/Time	Received by: (signature)	Date/Time	Notes:			
Relinquished by: (signature)			Date/Time	Received by: (signature)	Date/Time				
Relinquished by: (signature)			Date/Time	Received by: (signature)	Date/Time				
Relinquished by: (signature)			Date/Time	Received by: (signature)	Date/Time				

Lab Shipper Name

Air Bill #

Temp (°C)

Condition

Custody Seals Intact?

Work Order #

Use Only

ATC Depoff

NA

Good

Yes No ☒ None

1402298

3/5/2014

Mr. Conor McDonough
ERM-West
1277 Treat Blvd
Suite 500
Walnut Creek CA 94597

Project Name: SMI
Project #: 0201040.01SC
Workorder #: 1402299

Dear Mr. Conor McDonough

The following report includes the data for the above referenced project for sample(s) received on 2/19/2014 at Air Toxics Ltd.

The data and associated QC analyzed by Modified TO-15 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Air Toxics Ltd. for your air analysis needs. Air Toxics Ltd. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Kelly Buettner at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Kelly Buettner
Project Manager

WORK ORDER #: 1402299

Work Order Summary

CLIENT:	Mr. Conor McDonough ERM-West 1277 Treat Blvd Suite 500 Walnut Creek, CA 94597	BILL TO:	Mr. Conor McDonough ERM-West 1277 Treat Blvd Suite 500 Walnut Creek, CA 94597
PHONE:	925-946-0455	P.O. #	0201040.01SC
FAX:	925-946-9968	PROJECT #	0201040.01SC SMI
DATE RECEIVED:	02/19/2014	CONTACT:	Kelly Buettner
DATE COMPLETED:	03/05/2014		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	SMI-IA08D-20140216	Modified TO-15	5.0 "Hg	5 psi
01B	SMI-IA08D-20140216	Modified TO-15	5.0 "Hg	5 psi
02A	SMI-IA09-20140216	Modified TO-15	5.5 "Hg	5 psi
02B	SMI-IA09-20140216	Modified TO-15	5.5 "Hg	5 psi
03A	SMI-IA10-20140216	Modified TO-15	9.5 "Hg	5 psi
03B	SMI-IA10-20140216	Modified TO-15	9.5 "Hg	5 psi
04A	SMI-IA11-20140216	Modified TO-15	1.5 "Hg	5 psi
04B	SMI-IA11-20140216	Modified TO-15	1.5 "Hg	5 psi
05A	SMI-IA09D-20140216	Modified TO-15	6.0 "Hg	5 psi
05B	SMI-IA09D-20140216	Modified TO-15	6.0 "Hg	5 psi
06A	SMI-IA12-20140216	Modified TO-15	6.5 "Hg	5 psi
06B	SMI-IA12-20140216	Modified TO-15	6.5 "Hg	5 psi
07A	SMI-IA13-20140216	Modified TO-15	6.5 "Hg	5 psi
07B	SMI-IA13-20140216	Modified TO-15	6.5 "Hg	5 psi
08A	SMI-IA14-20140216	Modified TO-15	6.5 "Hg	5 psi
08B	SMI-IA14-20140216	Modified TO-15	6.5 "Hg	5 psi
09A	SMI-IA15-20140216	Modified TO-15	0.0 "Hg	5 psi
09B	SMI-IA15-20140216	Modified TO-15	0.0 "Hg	5 psi
10A	SMI-IA16-20140216	Modified TO-15	9.0 "Hg	5 psi
10B	SMI-IA16-20140216	Modified TO-15	9.0 "Hg	5 psi
11A	Lab Blank	Modified TO-15	NA	NA
11B	Lab Blank	Modified TO-15	NA	NA
12A	CCV	Modified TO-15	NA	NA

Continued on next page

WORK ORDER #: 1402299

Work Order Summary

CLIENT:	Mr. Conor McDonough ERM-West 1277 Treat Blvd Suite 500 Walnut Creek, CA 94597	BILL TO:	Mr. Conor McDonough ERM-West 1277 Treat Blvd Suite 500 Walnut Creek, CA 94597
PHONE:	925-946-0455	P.O. #	0201040.01SC
FAX:	925-946-9968	PROJECT #	0201040.01SC SMI
DATE RECEIVED:	02/19/2014	CONTACT:	Kelly Buettner
DATE COMPLETED:	03/05/2014		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
12B	CCV	Modified TO-15	NA	NA
13A	LCS	Modified TO-15	NA	NA
13AA	LCSD	Modified TO-15	NA	NA
13B	LCS	Modified TO-15	NA	NA
13BB	LCSD	Modified TO-15	NA	NA

CERTIFIED BY:



Technical Director

DATE: 03/05/14

Certification numbers: AZ Licensure AZ0775, CA NELAP - 12282CA, NJ NELAP - CA016, NY NELAP - 11291, TX NELAP - T104704434-13-6, UT NELAP CA009332013-4, VA NELAP - 460197, WA NELAP - C935

Name of Accrediting Agency: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)

Accreditation number: CA300005, Effective date: 10/18/2013, Expiration date: 10/17/2014.

Eurofins Air Toxics Inc., certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except in full, without the written approval of Eurofins Air Toxics, Inc.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 9563

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LABORATORY NARRATIVE
Modified TO-15 Full Scan/SIM
ERM-West
Workorder# 1402299

Ten 6 Liter Summa Canister (SIM Certified) samples were received on February 19, 2014. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the Full Scan and SIM acquisition modes. The method involves concentrating up to 1.0 liters of air. The concentrated aliquot is then flash vaporized and swept through a water management system to remove water vapor. Following dehumidification, the sample passes directly into the GC/MS for analysis.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the ATL modifications.

<i>Requirement</i>	<i>TO-15</i>	<i>ATL Modifications</i>
ICAL %RSD acceptance criteria	$\leq 30\%$ RSD with 2 compounds allowed out to $< 40\%$ RSD	For Full Scan: 30% RSD with 4 compounds allowed out to $< 40\%$ RSD For SIM: Project specific; default criteria is $\leq 30\%$ RSD with 10% of compounds allowed out to $< 40\%$ RSD
Daily Calibration	$\pm 30\%$ Difference	For Full Scan: $\leq 30\%$ Difference with four allowed out up to $\leq 40\%$; flag and narrate outliers For SIM: Project specific; default criteria is $\leq 30\%$ Difference with 10% of compounds allowed out up to $\leq 40\%$; flag and narrate outliers
Blank and standards	Zero air	Nitrogen
Method Detection Limit	Follow 40CFR Pt.136 App. B	The MDL met all relevant requirements in Method TO-15 (statistical MDL less than the LOQ). The concentration of the spiked replicate may have exceeded 10X the calculated MDL in some cases

Receiving Notes

Despite the use of a flow controller for sample collection, the final canister vacuum for sample SMI-IA15-20140216 was measured at ambient pressure in the field. This ambient pressure reading was confirmed by the laboratory upon sample receipt.

The Chain of Custody (COC) information for sample SMI-IA09-20140216 did not match the information on the canister with regard to canister identification. The information on the canister was used to process and report the sample.

Analytical Notes

The results for each sample in this report were acquired from two separate data files originating from the same analytical run. The two data files have the same base file name and are differentiated with a "sim" extension on the SIM data file.

Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

Summary of Detected Compounds

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

Client Sample ID: SMI-IA08D-20140216

Lab ID#: 1402299-01A

No Detections Were Found.

Client Sample ID: SMI-IA08D-20140216

Lab ID#: 1402299-01B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Toluene	0.032	0.30	0.12	1.1

Client Sample ID: SMI-IA09-20140216

Lab ID#: 1402299-02A

No Detections Were Found.

Client Sample ID: SMI-IA09-20140216

Lab ID#: 1402299-02B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.033	0.092	0.18	0.50
Trichloroethene	0.033	0.12	0.18	0.63
Toluene	0.033	0.39	0.12	1.5

Client Sample ID: SMI-IA10-20140216

Lab ID#: 1402299-03A

No Detections Were Found.

Client Sample ID: SMI-IA10-20140216

Lab ID#: 1402299-03B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.039	0.040	0.21	0.22
Toluene	0.039	0.40	0.15	1.5

Client Sample ID: SMI-IA11-20140216

Lab ID#: 1402299-04A

Summary of Detected Compounds

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

Client Sample ID: SMI-IA11-20140216

Lab ID#: 1402299-04A

No Detections Were Found.

Client Sample ID: SMI-IA11-20140216

Lab ID#: 1402299-04B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Toluene	0.028	0.54	0.11	2.0

Client Sample ID: SMI-IA09D-20140216

Lab ID#: 1402299-05A

No Detections Were Found.

Client Sample ID: SMI-IA09D-20140216

Lab ID#: 1402299-05B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1,1-Trichloroethane	0.034	0.11	0.18	0.58
Trichloroethene	0.034	0.12	0.18	0.62
Toluene	0.034	0.39	0.13	1.5

Client Sample ID: SMI-IA12-20140216

Lab ID#: 1402299-06A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 113	0.17	0.27	1.3	2.1

Client Sample ID: SMI-IA12-20140216

Lab ID#: 1402299-06B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Dichloroethene	0.017	0.18	0.068	0.70
1,1,1-Trichloroethane	0.034	1.3	0.19	6.9
Trichloroethene	0.034	0.12	0.18	0.64

Summary of Detected Compounds

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

Client Sample ID: SMI-IA12-20140216

Lab ID#: 1402299-06B

Toluene	0.034	0.35	0.13	1.3
Tetrachloroethene	0.034	0.047	0.23	0.32

Client Sample ID: SMI-IA13-20140216

Lab ID#: 1402299-07A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 113	0.17	0.24	1.3	1.9

Client Sample ID: SMI-IA13-20140216

Lab ID#: 1402299-07B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.017	0.023	0.044	0.058
1,1-Dichloroethene	0.017	0.32	0.068	1.2
1,1,1-Trichloroethane	0.034	1.9	0.19	11
Trichloroethene	0.034	0.073	0.18	0.39
Toluene	0.034	0.42	0.13	1.6

Client Sample ID: SMI-IA14-20140216

Lab ID#: 1402299-08A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 113	0.17	0.40	1.3	3.1
Chloroform	0.17	0.28	0.83	1.4

Client Sample ID: SMI-IA14-20140216

Lab ID#: 1402299-08B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Dichloroethene	0.017	0.086	0.068	0.34
1,1,1-Trichloroethane	0.034	0.81	0.19	4.4
Trichloroethene	0.034	0.053	0.18	0.28
Toluene	0.034	0.44	0.13	1.7

Summary of Detected Compounds

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

Client Sample ID: SMI-IA14-20140216

Lab ID#: 1402299-08B

Tetrachloroethene	0.034	0.064	0.23	0.43
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Client Sample ID: SMI-IA15-20140216

Lab ID#: 1402299-09A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 113	0.13	0.25	1.0	1.9

Client Sample ID: SMI-IA15-20140216

Lab ID#: 1402299-09B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Dichloroethene	0.013	0.048	0.053	0.19
1,1,1-Trichloroethane	0.027	0.44	0.15	2.4
Trichloroethene	0.027	0.042	0.14	0.22
Toluene	0.027	0.45	0.10	1.7
Tetrachloroethene	0.027	0.055	0.18	0.37

Client Sample ID: SMI-IA16-20140216

Lab ID#: 1402299-10A

No Detections Were Found.

Client Sample ID: SMI-IA16-20140216

Lab ID#: 1402299-10B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Dichloroethene	0.019	0.027	0.076	0.11
1,1,1-Trichloroethane	0.038	0.20	0.21	1.1
Toluene	0.038	0.38	0.14	1.4



Air Toxics

Client Sample ID: SMI-IA08D-20140216

Lab ID#: 1402299-01A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	v022510	Date of Collection:	2/17/14 1:35:00 PM
Dil. Factor:	1.61	Date of Analysis:	2/25/14 05:13 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 113	0.16	Not Detected	1.2	Not Detected
Chloroform	0.16	Not Detected	0.79	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	91	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	112	70-130



Air Toxics

Client Sample ID: SMI-IA08D-20140216

Lab ID#: 1402299-01B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	v022510sim	Date of Collection:	2/17/14 1:35:00 PM
Dil. Factor:	1.61	Date of Analysis:	2/25/14 05:13 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.016	Not Detected	0.041	Not Detected
1,1-Dichloroethene	0.016	Not Detected	0.064	Not Detected
1,1-Dichloroethane	0.032	Not Detected	0.13	Not Detected
cis-1,2-Dichloroethene	0.032	Not Detected	0.13	Not Detected
1,1,1-Trichloroethane	0.032	Not Detected	0.18	Not Detected
Trichloroethene	0.032	Not Detected	0.17	Not Detected
Toluene	0.032	0.30	0.12	1.1
Tetrachloroethene	0.032	Not Detected	0.22	Not Detected
trans-1,2-Dichloroethene	0.16	Not Detected	0.64	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	91	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	115	70-130



Air Toxics

Client Sample ID: SMI-IA09-20140216

Lab ID#: 1402299-02A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	v022511	Date of Collection:	2/17/14 12:17:00 PM
Dil. Factor:	1.64	Date of Analysis:	2/25/14 06:20 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 113	0.16	Not Detected	1.2	Not Detected
Chloroform	0.16	Not Detected	0.80	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	91	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	110	70-130



Air Toxics

Client Sample ID: SMI-IA09-20140216

Lab ID#: 1402299-02B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	v022511sim	Date of Collection: 2/17/14 12:17:00 PM
Dil. Factor:	1.64	Date of Analysis: 2/25/14 06:20 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.016	Not Detected	0.042	Not Detected
1,1-Dichloroethene	0.016	Not Detected	0.065	Not Detected
1,1-Dichloroethane	0.033	Not Detected	0.13	Not Detected
cis-1,2-Dichloroethene	0.033	Not Detected	0.13	Not Detected
1,1,1-Trichloroethane	0.033	0.092	0.18	0.50
Trichloroethene	0.033	0.12	0.18	0.63
Toluene	0.033	0.39	0.12	1.5
Tetrachloroethene	0.033	Not Detected	0.22	Not Detected
trans-1,2-Dichloroethene	0.16	Not Detected	0.65	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	89	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	117	70-130



Air Toxics

Client Sample ID: SMI-IA10-20140216

Lab ID#: 1402299-03A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	v022512	Date of Collection:	2/17/14 1:43:00 PM
Dil. Factor:	1.96	Date of Analysis:	2/25/14 07:20 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 113	0.20	Not Detected	1.5	Not Detected
Chloroform	0.20	Not Detected	0.96	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	88	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	112	70-130



Air Toxics

Client Sample ID: SMI-IA10-20140216

Lab ID#: 1402299-03B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	v022512sim	Date of Collection:	2/17/14 1:43:00 PM
Dil. Factor:	1.96	Date of Analysis:	2/25/14 07:20 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.020	Not Detected	0.050	Not Detected
1,1-Dichloroethene	0.020	Not Detected	0.078	Not Detected
1,1-Dichloroethane	0.039	Not Detected	0.16	Not Detected
cis-1,2-Dichloroethene	0.039	Not Detected	0.16	Not Detected
1,1,1-Trichloroethane	0.039	0.040	0.21	0.22
Trichloroethene	0.039	Not Detected	0.21	Not Detected
Toluene	0.039	0.40	0.15	1.5
Tetrachloroethene	0.039	Not Detected	0.26	Not Detected
trans-1,2-Dichloroethene	0.20	Not Detected	0.78	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	91	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	119	70-130



Air Toxics

Client Sample ID: SMI-IA11-20140216

Lab ID#: 1402299-04A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	v022513	Date of Collection:	2/17/14 12:53:00 PM
Dil. Factor:	1.41	Date of Analysis:	2/25/14 08:26 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 113	0.14	Not Detected	1.1	Not Detected
Chloroform	0.14	Not Detected	0.69	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	92	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	119	70-130



Air Toxics

Client Sample ID: SMI-IA11-20140216

Lab ID#: 1402299-04B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	v022513sim	Date of Collection:	2/17/14 12:53:00 PM
Dil. Factor:	1.41	Date of Analysis:	2/25/14 08:26 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.014	Not Detected	0.036	Not Detected
1,1-Dichloroethene	0.014	Not Detected	0.056	Not Detected
1,1-Dichloroethane	0.028	Not Detected	0.11	Not Detected
cis-1,2-Dichloroethene	0.028	Not Detected	0.11	Not Detected
1,1,1-Trichloroethane	0.028	Not Detected	0.15	Not Detected
Trichloroethene	0.028	Not Detected	0.15	Not Detected
Toluene	0.028	0.54	0.11	2.0
Tetrachloroethene	0.028	Not Detected	0.19	Not Detected
trans-1,2-Dichloroethene	0.14	Not Detected	0.56	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	91	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	118	70-130



Air Toxics

Client Sample ID: SMI-IA09D-20140216

Lab ID#: 1402299-05A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	v022514	Date of Collection:	2/17/14 12:17:00 PM
Dil. Factor:	1.68	Date of Analysis:	2/25/14 09:17 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 113	0.17	Not Detected	1.3	Not Detected
Chloroform	0.17	Not Detected	0.82	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	96	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	121	70-130



Air Toxics

Client Sample ID: SMI-IA09D-20140216

Lab ID#: 1402299-05B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	v022514sim	Date of Collection: 2/17/14 12:17:00 PM
Dil. Factor:	1.68	Date of Analysis: 2/25/14 09:17 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.017	Not Detected	0.043	Not Detected
1,1-Dichloroethene	0.017	Not Detected	0.067	Not Detected
1,1-Dichloroethane	0.034	Not Detected	0.14	Not Detected
cis-1,2-Dichloroethene	0.034	Not Detected	0.13	Not Detected
1,1,1-Trichloroethane	0.034	0.11	0.18	0.58
Trichloroethene	0.034	0.12	0.18	0.62
Toluene	0.034	0.39	0.13	1.5
Tetrachloroethene	0.034	Not Detected	0.23	Not Detected
trans-1,2-Dichloroethene	0.17	Not Detected	0.67	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	92	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	116	70-130



Air Toxics

Client Sample ID: SMI-IA12-20140216

Lab ID#: 1402299-06A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	v022515	Date of Collection:	2/17/14 12:24:00 PM
Dil. Factor:	1.71	Date of Analysis:	2/25/14 10:00 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 113	0.17	0.27	1.3	2.1
Chloroform	0.17	Not Detected	0.83	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	93	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	117	70-130



Air Toxics

Client Sample ID: SMI-IA12-20140216

Lab ID#: 1402299-06B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	v022515sim	Date of Collection: 2/17/14 12:24:00 PM
Dil. Factor:	1.71	Date of Analysis: 2/25/14 10:00 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.017	Not Detected	0.044	Not Detected
1,1-Dichloroethene	0.017	0.18	0.068	0.70
1,1-Dichloroethane	0.034	Not Detected	0.14	Not Detected
cis-1,2-Dichloroethene	0.034	Not Detected	0.14	Not Detected
1,1,1-Trichloroethane	0.034	1.3	0.19	6.9
Trichloroethene	0.034	0.12	0.18	0.64
Toluene	0.034	0.35	0.13	1.3
Tetrachloroethene	0.034	0.047	0.23	0.32
trans-1,2-Dichloroethene	0.17	Not Detected	0.68	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	93	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	118	70-130



Air Toxics

Client Sample ID: SMI-IA13-20140216

Lab ID#: 1402299-07A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	v022516	Date of Collection:	2/17/14 1:08:00 PM
Dil. Factor:	1.71	Date of Analysis:	2/25/14 10:39 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 113	0.17	0.24	1.3	1.9
Chloroform	0.17	Not Detected	0.83	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	87	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	115	70-130



Air Toxics

Client Sample ID: SMI-IA13-20140216

Lab ID#: 1402299-07B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	v022516sim	Date of Collection: 2/17/14 1:08:00 PM
Dil. Factor:	1.71	Date of Analysis: 2/25/14 10:39 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.017	0.023	0.044	0.058
1,1-Dichloroethene	0.017	0.32	0.068	1.2
1,1-Dichloroethane	0.034	Not Detected	0.14	Not Detected
cis-1,2-Dichloroethene	0.034	Not Detected	0.14	Not Detected
1,1,1-Trichloroethane	0.034	1.9	0.19	11
Trichloroethene	0.034	0.073	0.18	0.39
Toluene	0.034	0.42	0.13	1.6
Tetrachloroethene	0.034	Not Detected	0.23	Not Detected
trans-1,2-Dichloroethene	0.17	Not Detected	0.68	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	94	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	117	70-130



Air Toxics

Client Sample ID: SMI-IA14-20140216

Lab ID#: 1402299-08A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	v022517	Date of Collection:	2/17/14 11:15:00 AM
Dil. Factor:	1.71	Date of Analysis:	2/26/14 06:34 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 113	0.17	0.40	1.3	3.1
Chloroform	0.17	0.28	0.83	1.4

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	86	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	112	70-130



Air Toxics

Client Sample ID: SMI-IA14-20140216

Lab ID#: 1402299-08B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	v022517sim	Date of Collection: 2/17/14 11:15:00 AM
Dil. Factor:	1.71	Date of Analysis: 2/26/14 06:34 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.017	Not Detected	0.044	Not Detected
1,1-Dichloroethene	0.017	0.086	0.068	0.34
1,1-Dichloroethane	0.034	Not Detected	0.14	Not Detected
cis-1,2-Dichloroethene	0.034	Not Detected	0.14	Not Detected
1,1,1-Trichloroethane	0.034	0.81	0.19	4.4
Trichloroethene	0.034	0.053	0.18	0.28
Toluene	0.034	0.44	0.13	1.7
Tetrachloroethene	0.034	0.064	0.23	0.43
trans-1,2-Dichloroethene	0.17	Not Detected	0.68	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	92	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	118	70-130



Air Toxics

Client Sample ID: SMI-IA15-20140216

Lab ID#: 1402299-09A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	v022519	Date of Collection:	2/17/14 11:02:00 AM
Dil. Factor:	1.34	Date of Analysis:	2/26/14 08:09 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 113	0.13	0.25	1.0	1.9
Chloroform	0.13	Not Detected	0.65	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	94	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	118	70-130



Air Toxics

Client Sample ID: SMI-IA15-20140216

Lab ID#: 1402299-09B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	v022519sim	Date of Collection:	2/17/14 11:02:00 AM
Dil. Factor:	1.34	Date of Analysis:	2/26/14 08:09 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.013	Not Detected	0.034	Not Detected
1,1-Dichloroethene	0.013	0.048	0.053	0.19
1,1-Dichloroethane	0.027	Not Detected	0.11	Not Detected
cis-1,2-Dichloroethene	0.027	Not Detected	0.11	Not Detected
1,1,1-Trichloroethane	0.027	0.44	0.15	2.4
Trichloroethene	0.027	0.042	0.14	0.22
Toluene	0.027	0.45	0.10	1.7
Tetrachloroethene	0.027	0.055	0.18	0.37
trans-1,2-Dichloroethene	0.13	Not Detected	0.53	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	94	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	118	70-130



Air Toxics

Client Sample ID: SMI-IA16-20140216

Lab ID#: 1402299-10A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	v022518	Date of Collection:	2/17/14 11:27:00 AM
Dil. Factor:	1.91	Date of Analysis:	2/26/14 07:24 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 113	0.19	Not Detected	1.5	Not Detected
Chloroform	0.19	Not Detected	0.93	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	94	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	117	70-130



Air Toxics

Client Sample ID: SMI-IA16-20140216

Lab ID#: 1402299-10B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	v022518sim	Date of Collection: 2/17/14 11:27:00 AM
Dil. Factor:	1.91	Date of Analysis: 2/26/14 07:24 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.019	Not Detected	0.049	Not Detected
1,1-Dichloroethene	0.019	0.027	0.076	0.11
1,1-Dichloroethane	0.038	Not Detected	0.15	Not Detected
cis-1,2-Dichloroethene	0.038	Not Detected	0.15	Not Detected
1,1,1-Trichloroethane	0.038	0.20	0.21	1.1
Trichloroethene	0.038	Not Detected	0.20	Not Detected
Toluene	0.038	0.38	0.14	1.4
Tetrachloroethene	0.038	Not Detected	0.26	Not Detected
trans-1,2-Dichloroethene	0.19	Not Detected	0.76	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	93	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	119	70-130



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1402299-11A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	v022506	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 2/25/14 01:40 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 113	0.10	Not Detected	0.77	Not Detected
Chloroform	0.10	Not Detected	0.49	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	89	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	113	70-130



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1402299-11B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	v022506sim	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 2/25/14 01:40 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.010	Not Detected	0.026	Not Detected
1,1-Dichloroethene	0.010	Not Detected	0.040	Not Detected
1,1-Dichloroethane	0.020	Not Detected	0.081	Not Detected
cis-1,2-Dichloroethene	0.020	Not Detected	0.079	Not Detected
1,1,1-Trichloroethane	0.020	Not Detected	0.11	Not Detected
Trichloroethene	0.020	Not Detected	0.11	Not Detected
Toluene	0.020	Not Detected	0.075	Not Detected
Tetrachloroethene	0.020	Not Detected	0.14	Not Detected
trans-1,2-Dichloroethene	0.10	Not Detected	0.40	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	90	70-130
Toluene-d8	96	70-130
4-Bromofluorobenzene	116	70-130

Client Sample ID: CCV

Lab ID#: 1402299-12A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	v022502	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 2/25/14 09:45 AM

Compound	%Recovery
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Freon 113	103
Chloroform	94

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	90	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	115	70-130



Air Toxics

Client Sample ID: CCV

Lab ID#: 1402299-12B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name: v022502sim
Dil. Factor: 1.00

Date of Collection: NA
Date of Analysis: 2/25/14 09:45 AM

Compound	%Recovery
Vinyl Chloride	86
1,1-Dichloroethene	92
1,1-Dichloroethane	83
cis-1,2-Dichloroethene	98
1,1,1-Trichloroethane	90
Trichloroethene	100
Toluene	96
Tetrachloroethene	100
trans-1,2-Dichloroethene	94

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	88	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	120	70-130



Air Toxics

Client Sample ID: LCS

Lab ID#: 1402299-13A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	v022503	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 2/25/14 10:49 AM

Compound	%Recovery	Method Limits
Freon 113	121	70-130
Chloroform	96	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	88	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	121	70-130



Air Toxics

Client Sample ID: LCSD

Lab ID#: 1402299-13AA

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name: v022504
Dil. Factor: 1.00

Date of Collection: NA
Date of Analysis: 2/25/14 11:29 AM

Compound	%Recovery	Method Limits
Freon 113	125	70-130
Chloroform	100	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	90	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	118	70-130



Air Toxics

Client Sample ID: LCS

Lab ID#: 1402299-13B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name: v022503sim

Date of Collection: NA

Dil. Factor: 1.00

Date of Analysis: 2/25/14 10:49 AM

Compound	%Recovery	Method Limits
Vinyl Chloride	89	70-130
1,1-Dichloroethene	107	70-130
1,1-Dichloroethane	87	70-130
cis-1,2-Dichloroethene	115	70-130
1,1,1-Trichloroethane	94	70-130
Trichloroethene	104	70-130
Toluene	98	70-130
Tetrachloroethene	102	70-130
trans-1,2-Dichloroethene	85	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	87	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	122	70-130



Air Toxics

Client Sample ID: LCSD

Lab ID#: 1402299-13BB

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name: v022504sim

Date of Collection: NA

Dil. Factor: 1.00

Date of Analysis: 2/25/14 11:29 AM

Compound	%Recovery	Method Limits
Vinyl Chloride	89	70-130
1,1-Dichloroethene	108	70-130
1,1-Dichloroethane	88	70-130
cis-1,2-Dichloroethene	115	70-130
1,1,1-Trichloroethane	94	70-130
Trichloroethene	104	70-130
Toluene	98	70-130
Tetrachloroethene	101	70-130
trans-1,2-Dichloroethene	85	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	88	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	124	70-130

1402298



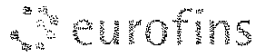
Method : Modified TO-15 Hi/Lo (Sp)-AMEC (GE Intersil)

Compound	Rpt. Limit (ugm3)
Vinyl Chloride	0.026
1,1-Dichloroethene	0.040
1,1-Dichloroethane	0.081
cis-1,2-Dichloroethene	0.079
1,1,1-Trichloroethane	0.11
Trichloroethene	0.11
Toluene	0.075
Tetrachloroethene	0.14
trans-1,2-Dichloroethene	0.40
Freon 113	0.77
Chloroform	0.49

Surrogate	Method Limits
1,2-Dichloroethane-d4	70-130
Toluene-d8	70-130
4-Bromofluorobenzene	70-130

Reporting Limits cited do not take into account sample dilution due to canister pressurization.

1402299



Method : Modified TO-15 HI/Lo (Sp)-AMEC (GE Intersil)

Compound	Rpt. Limit (ugm3)
Vinyl Chloride	0.026
1,1-Dichloroethene	0.040
1,1-Dichloroethane	0.081
cis-1,2-Dichloroethene	0.079
1,1,1-Trichloroethane	0.11
Trichloroethene	0.11
Toluene	0.075
Tetrachloroethene	0.14
trans-1,2-Dichloroethene	0.40
Freon 113	0.77
Chloroform	0.49

Surrogate	Method Limits
1,2-Dichloroethane-d4	70-130
Toluene-d8	70-130
4-Bromofluorobenzene	70-130

Reporting Limits cited do not take into account sample dilution due to canister pressurization.



Air Toxics

Sample Transportation Notice

Relinquishing signature on this document indicates that sample is being shipped in compliance with all applicable local, State, Federal, national, and international laws, regulations and ordinances of any kind. Air Toxics Limited assumes no liability with respect to the collection, handling or shipping of these samples. Relinquishing signature also indicates agreement to hold harmless, defend, and indemnify Air Toxics Limited against any claim, demand, or action, of any kind, related to the collection, handling, or shipping of samples. D.O.T. Hotline (800) 467-4922

180 BLUE RAVINE ROAD, SUITE B
FOLSOM, CA 95630-4719
(916) 985-1000 FAX (916) 985-1020

Page 2 of 3

Project Manager Heather Balfour

Collected by: (Print and Sign) Conor McDonough

Company ERM - West

Address _____ City _____ State _____ Zip _____

Phone _____ Fax _____

Project Info:

P.O. # _____

Project # 0201040.01SC

Project Name SMI

Turn Around Time:

☒ Normal

☐ Rush

Lab Use Only
Pressurized by:

Date:

Pressurization Gas:

specify

N₂ He

Lab I.D. Field Sample I.D. (Location)

Can #

Date of Collection Time of Collection

Analyses Requested

Canister Pressure/Vacuum
Initial Final Receipt Final (psi)

01A SMI-08D-20140216

34734

2/14/14 2/17/14 1336/1335

TOIS/SM

-30

-5.5

02A SMI-IA09-20140216

33868

1345/1217

-29

-6

03A SMI-IA10-20140216

12695

1334/1343

-30

-9.5

04A SMI-IA11-20140216

34497

1340/1253

-29

-6

05A SMI-IA09D-20140216

32114

1345/1217

-30

-6.5

06A SMI-IA12-20140216

21009

1347/1224

-30

-7

07A SMI-IA13-20140216

4387

1352/1308

-30

-7

08A SMI-IA14-20140216

1625

1206/1115

-30

-7

09A SMI-IA15-20140216

3729

1204/1102

-28

-7

10A SMI-IA16-20140216

34476

1222/1127

-30

-7

Notes:

Relinquished by: (signature) Date/Time 2/18/14 2:00pm

Relinquished by: (signature) Date/Time

Received by: (signature) Date/Time

Received by: (signature) Date/Time 2/19/14 1530

Relinquished by: (signature) Date/Time

Received by: (signature) Date/Time

Lab Shipper Name

Air Bill #

Temp (°C)

Condition

Custody Seals Intact?

Work Order #

Use Only

NA

NA

Good

Yes No None

1402299

1402299



Method : Modified TO-15 HI/Lo (Sp)-AMEC (GE Intersil)

Compound	Rpt. Limit (ugm3)
Vinyl Chloride	0.026
1,1-Dichloroethene	0.040
1,1-Dichloroethane	0.081
cis-1,2-Dichloroethene	0.079
1,1,1-Trichloroethane	0.11
Trichloroethene	0.11
Toluene	0.075
Tetrachloroethene	0.14
trans-1,2-Dichloroethene	0.40
Freon 113	0.77
Chloroform	0.49

Surrogate	Method Limits
1,2-Dichloroethane-d4	70-130
Toluene-d8	70-130
4-Bromofluorobenzene	70-130

Reporting Limits cited do not take into account sample dilution due to canister pressurization.

3/5/2014

Mr. Conor McDonough

ERM-West

1277 Treat Blvd

Suite 500

Walnut Creek CA 94597

Project Name: SMI

Project #: 0201040.01SC

Workorder #: 1402300

Dear Mr. Conor McDonough

The following report includes the data for the above referenced project for sample(s) received on 2/19/2014 at Air Toxics Ltd.

The data and associated QC analyzed by Modified TO-15 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Air Toxics Ltd. for your air analysis needs. Air Toxics Ltd. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Kelly Buettner at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Kelly Buettner

Project Manager

WORK ORDER #: 1402300

Work Order Summary

CLIENT: Mr. Conor McDonough
ERM-West
1277 Treat Blvd
Suite 500
Walnut Creek, CA 94597

BILL TO: Mr. Conor McDonough
ERM-West
1277 Treat Blvd
Suite 500
Walnut Creek, CA 94597

PHONE: 925-946-0455

P.O. # 0201040.01SC

FAX: 925-946-9968

PROJECT # 0201040.01SC SMI

DATE RECEIVED: 02/19/2014

CONTACT: Kelly Buettner

DATE COMPLETED: 02/25/2014

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	SMI-IA16D-20140216	Modified TO-15	6.5 "Hg	5 psi
01B	SMI-IA16D-20140216	Modified TO-15	6.5 "Hg	5 psi
02A	SMI-IA17-20140216	Modified TO-15	5.5 "Hg	5 psi
02B	SMI-IA17-20140216	Modified TO-15	5.5 "Hg	5 psi
03A	SMI-IA18-20140216	Modified TO-15	7.0 "Hg	5 psi
03B	SMI-IA18-20140216	Modified TO-15	7.0 "Hg	5 psi
04A	SMI-IA19-20140216	Modified TO-15	5.5 "Hg	5 psi
04B	SMI-IA19-20140216	Modified TO-15	5.5 "Hg	5 psi
05A	SMI-IA20-20140216	Modified TO-15	3.5 "Hg	5 psi
05B	SMI-IA20-20140216	Modified TO-15	3.5 "Hg	5 psi
06A	SMI-IA21-20140216	Modified TO-15	6.0 "Hg	5 psi
06B	SMI-IA21-20140216	Modified TO-15	6.0 "Hg	5 psi
07A	SMI-IA22-20140216	Modified TO-15	7.5 "Hg	5 psi
07B	SMI-IA22-20140216	Modified TO-15	7.5 "Hg	5 psi
08A	SMI-IA23-20140216	Modified TO-15	6.0 "Hg	5 psi
08B	SMI-IA23-20140216	Modified TO-15	6.0 "Hg	5 psi
09A	Lab Blank	Modified TO-15	NA	NA
09B	Lab Blank	Modified TO-15	NA	NA
10A	CCV	Modified TO-15	NA	NA
10B	CCV	Modified TO-15	NA	NA
11A	LCS	Modified TO-15	NA	NA
11AA	LCSD	Modified TO-15	NA	NA
11B	LCS	Modified TO-15	NA	NA

Continued on next page

WORK ORDER #: 1402300

Work Order Summary

CLIENT:	Mr. Conor McDonough ERM-West 1277 Treat Blvd Suite 500 Walnut Creek, CA 94597	BILL TO:	Mr. Conor McDonough ERM-West 1277 Treat Blvd Suite 500 Walnut Creek, CA 94597
PHONE:	925-946-0455	P.O. #	0201040.01SC
FAX:	925-946-9968	PROJECT #	0201040.01SC SMI
DATE RECEIVED:	02/19/2014	CONTACT:	Kelly Buettner
DATE COMPLETED:	02/25/2014		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
11BB	LCSD	Modified TO-15	NA	NA

CERTIFIED BY:



Technical Director

DATE: 03/05/14

Certification numbers: AZ Licensure AZ0775, CA NELAP - 12282CA, NJ NELAP - CA016, NY NELAP - 11291,
TX NELAP - T104704434-13-6, UT NELAP CA009332013-4, VA NELAP - 460197, WA NELAP - C935

Name of Accrediting Agency: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)

Accreditation number: CA300005, Effective date: 10/18/2013, Expiration date: 10/17/2014.

Eurofins Air Toxics Inc.. certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except in full, without the written approval of Eurofins Air Toxics, Inc.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 9562

(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020



LABORATORY NARRATIVE
Modified TO-15 Full Scan/SIM
ERM-West
Workorder# 1402300

Eight 6 Liter Summa Canister (SIM Certified) samples were received on February 19, 2014. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the Full Scan and SIM acquisition modes. The method involves concentrating up to 1.0 liters of air. The concentrated aliquot is then flash vaporized and swept through a water management system to remove water vapor. Following dehumidification, the sample passes directly into the GC/MS for analysis.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the ATL modifications.

<i>Requirement</i>	<i>TO-15</i>	<i>ATL Modifications</i>
ICAL %RSD acceptance criteria	$\leq 30\%$ RSD with 2 compounds allowed out to $< 40\%$ RSD	For Full Scan: 30% RSD with 4 compounds allowed out to $< 40\%$ RSD For SIM: Project specific; default criteria is $\leq 30\%$ RSD with 10% of compounds allowed out to $< 40\%$ RSD
Daily Calibration	$\pm 30\%$ Difference	For Full Scan: $\leq 30\%$ Difference with four allowed out up to $\leq 40\%$.; flag and narrate outliers For SIM: Project specific; default criteria is $\leq 30\%$ Difference with 10% of compounds allowed out up to $\leq 40\%$.; flag and narrate outliers
Blank and standards	Zero air	Nitrogen
Method Detection Limit	Follow 40CFR Pt.136 App. B	The MDL met all relevant requirements in Method TO-15 (statistical MDL less than the LOQ). The concentration of the spiked replicate may have exceeded 10X the calculated MDL in some cases

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

The results for each sample in this report were acquired from two separate data files originating from the same analytical run. The two data files have the same base file name and are differentiated with a "sim" extension on the SIM data file.

Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

Summary of Detected Compounds

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

Client Sample ID: SMI-IA16D-20140216

Lab ID#: 1402300-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 113	0.17	0.17	1.3	1.3

Client Sample ID: SMI-IA16D-20140216

Lab ID#: 1402300-01B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Dichloroethene	0.017	0.027	0.068	0.11
1,1,1-Trichloroethane	0.034	0.24	0.19	1.3
Trichloroethene	0.034	0.037	0.18	0.20
Toluene	0.034	0.41	0.13	1.5
Tetrachloroethene	0.034	0.038	0.23	0.26

Client Sample ID: SMI-IA17-20140216

Lab ID#: 1402300-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 113	0.16	0.16	1.2	1.2
Chloroform	0.16	0.38	0.80	1.8

Client Sample ID: SMI-IA17-20140216

Lab ID#: 1402300-02B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Dichloroethene	0.016	0.022	0.065	0.088
1,1,1-Trichloroethane	0.033	0.22	0.18	1.2
Trichloroethene	0.033	0.050	0.18	0.27
Toluene	0.033	0.39	0.12	1.5
Tetrachloroethene	0.033	0.041	0.22	0.28

Client Sample ID: SMI-IA18-20140216

Lab ID#: 1402300-03A

No Detections Were Found.

Summary of Detected Compounds

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

Client Sample ID: SMI-IA18-20140216

Lab ID#: 1402300-03B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Dichloroethene	0.018	0.018	0.069	0.070
1,1,1-Trichloroethane	0.035	0.17	0.19	0.94
Trichloroethene	0.035	0.044	0.19	0.24
Toluene	0.035	0.52	0.13	2.0

Client Sample ID: SMI-IA19-20140216

Lab ID#: 1402300-04A

No Detections Were Found.

Client Sample ID: SMI-IA19-20140216

Lab ID#: 1402300-04B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Dichloroethene	0.016	0.030	0.065	0.12
1,1,1-Trichloroethane	0.033	0.22	0.18	1.2
Toluene	0.033	0.35	0.12	1.3

Client Sample ID: SMI-IA20-20140216

Lab ID#: 1402300-05A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 113	0.15	0.20	1.2	1.5

Client Sample ID: SMI-IA20-20140216

Lab ID#: 1402300-05B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Dichloroethene	0.015	0.040	0.060	0.16
1,1,1-Trichloroethane	0.030	0.30	0.16	1.6
Trichloroethene	0.030	0.032	0.16	0.17
Toluene	0.030	0.43	0.11	1.6
Tetrachloroethene	0.030	0.034	0.21	0.23

Summary of Detected Compounds

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

Client Sample ID: SMI-IA21-20140216

Lab ID#: 1402300-06A

No Detections Were Found.

Client Sample ID: SMI-IA21-20140216

Lab ID#: 1402300-06B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Dichloroethene	0.017	0.038	0.067	0.15
1,1,1-Trichloroethane	0.034	0.27	0.18	1.5
Trichloroethene	0.034	0.034	0.18	0.18
Toluene	0.034	0.38	0.13	1.4

Client Sample ID: SMI-IA22-20140216

Lab ID#: 1402300-07A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 113	0.18	0.37	1.4	2.8

Client Sample ID: SMI-IA22-20140216

Lab ID#: 1402300-07B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Dichloroethene	0.018	0.031	0.071	0.12
1,1,1-Trichloroethane	0.036	0.37	0.20	2.0
Toluene	0.036	0.46	0.13	1.7

Client Sample ID: SMI-IA23-20140216

Lab ID#: 1402300-08A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 113	0.17	0.21	1.3	1.6

Client Sample ID: SMI-IA23-20140216

Lab ID#: 1402300-08B

Summary of Detected Compounds

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

Client Sample ID: SMI-IA23-20140216

Lab ID#: 1402300-08B

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
1,1-Dichloroethene	0.017	0.024	0.067	0.095
1,1,1-Trichloroethane	0.034	0.22	0.18	1.2
Toluene	0.034	0.46	0.13	1.7



Air Toxics

Client Sample ID: SMI-IA16D-20140216

Lab ID#: 1402300-01A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	c022510	Date of Collection: 2/17/14 11:27:00 AM
Dil. Factor:	1.71	Date of Analysis: 2/25/14 02:57 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 113	0.17	0.17	1.3	1.3
Chloroform	0.17	Not Detected	0.83	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	99	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	92	70-130



Air Toxics

Client Sample ID: SMI-IA16D-20140216

Lab ID#: 1402300-01B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	c022510sim	Date of Collection: 2/17/14 11:27:00 AM
Dil. Factor:	1.71	Date of Analysis: 2/25/14 02:57 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.017	Not Detected	0.044	Not Detected
1,1-Dichloroethene	0.017	0.027	0.068	0.11
1,1-Dichloroethane	0.034	Not Detected	0.14	Not Detected
cis-1,2-Dichloroethene	0.034	Not Detected	0.14	Not Detected
1,1,1-Trichloroethane	0.034	0.24	0.19	1.3
Trichloroethene	0.034	0.037	0.18	0.20
Toluene	0.034	0.41	0.13	1.5
Tetrachloroethene	0.034	0.038	0.23	0.26
trans-1,2-Dichloroethene	0.17	Not Detected	0.68	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	98	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	97	70-130



Air Toxics

Client Sample ID: SMI-IA17-20140216

Lab ID#: 1402300-02A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	c022507	Date of Collection:	2/17/14 11:37:00 AM
Dil. Factor:	1.64	Date of Analysis:	2/25/14 12:40 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 113	0.16	0.16	1.2	1.2
Chloroform	0.16	0.38	0.80	1.8

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	92	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	95	70-130



Air Toxics

Client Sample ID: SMI-IA17-20140216

Lab ID#: 1402300-02B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	c022507sim	Date of Collection: 2/17/14 11:37:00 AM
Dil. Factor:	1.64	Date of Analysis: 2/25/14 12:40 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.016	Not Detected	0.042	Not Detected
1,1-Dichloroethene	0.016	0.022	0.065	0.088
1,1-Dichloroethane	0.033	Not Detected	0.13	Not Detected
cis-1,2-Dichloroethene	0.033	Not Detected	0.13	Not Detected
1,1,1-Trichloroethane	0.033	0.22	0.18	1.2
Trichloroethene	0.033	0.050	0.18	0.27
Toluene	0.033	0.39	0.12	1.5
Tetrachloroethene	0.033	0.041	0.22	0.28
trans-1,2-Dichloroethene	0.16	Not Detected	0.65	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	97	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	99	70-130



Air Toxics

Client Sample ID: SMI-IA18-20140216

Lab ID#: 1402300-03A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	c022508	Date of Collection: 2/17/14 11:34:00 AM
Dil. Factor:	1.75	Date of Analysis: 2/25/14 01:28 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 113	0.18	Not Detected	1.3	Not Detected
Chloroform	0.18	Not Detected	0.85	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	96	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	100	70-130



Air Toxics

Client Sample ID: SMI-IA18-20140216

Lab ID#: 1402300-03B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	c022508sim	Date of Collection: 2/17/14 11:34:00 AM
Dil. Factor:	1.75	Date of Analysis: 2/25/14 01:28 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.018	Not Detected	0.045	Not Detected
1,1-Dichloroethene	0.018	0.018	0.069	0.070
1,1-Dichloroethane	0.035	Not Detected	0.14	Not Detected
cis-1,2-Dichloroethene	0.035	Not Detected	0.14	Not Detected
1,1,1-Trichloroethane	0.035	0.17	0.19	0.94
Trichloroethene	0.035	0.044	0.19	0.24
Toluene	0.035	0.52	0.13	2.0
Tetrachloroethene	0.035	Not Detected	0.24	Not Detected
trans-1,2-Dichloroethene	0.18	Not Detected	0.69	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	98	70-130
Toluene-d8	104	70-130
4-Bromofluorobenzene	101	70-130



Air Toxics

Client Sample ID: SMI-IA19-20140216

Lab ID#: 1402300-04A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	c022509	Date of Collection: 2/17/14 11:44:00 AM
Dil. Factor:	1.64	Date of Analysis: 2/25/14 02:20 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 113	0.16	Not Detected	1.2	Not Detected
Chloroform	0.16	Not Detected	0.80	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	96	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	100	70-130



Air Toxics

Client Sample ID: SMI-IA19-20140216

Lab ID#: 1402300-04B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	c022509sim	Date of Collection: 2/17/14 11:44:00 AM
Dil. Factor:	1.64	Date of Analysis: 2/25/14 02:20 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.016	Not Detected	0.042	Not Detected
1,1-Dichloroethene	0.016	0.030	0.065	0.12
1,1-Dichloroethane	0.033	Not Detected	0.13	Not Detected
cis-1,2-Dichloroethene	0.033	Not Detected	0.13	Not Detected
1,1,1-Trichloroethane	0.033	0.22	0.18	1.2
Trichloroethene	0.033	Not Detected	0.18	Not Detected
Toluene	0.033	0.35	0.12	1.3
Tetrachloroethene	0.033	Not Detected	0.22	Not Detected
trans-1,2-Dichloroethene	0.16	Not Detected	0.65	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	97	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	97	70-130



Air Toxics

Client Sample ID: SMI-IA20-20140216

Lab ID#: 1402300-05A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	c022511	Date of Collection:	2/17/14 11:48:00 AM
Dil. Factor:	1.52	Date of Analysis:	2/25/14 03:40 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 113	0.15	0.20	1.2	1.5
Chloroform	0.15	Not Detected	0.74	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	101	70-130



Air Toxics

Client Sample ID: SMI-IA20-20140216

Lab ID#: 1402300-05B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	c022511sim	Date of Collection:	2/17/14 11:48:00 AM
Dil. Factor:	1.52	Date of Analysis:	2/25/14 03:40 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.015	Not Detected	0.039	Not Detected
1,1-Dichloroethene	0.015	0.040	0.060	0.16
1,1-Dichloroethane	0.030	Not Detected	0.12	Not Detected
cis-1,2-Dichloroethene	0.030	Not Detected	0.12	Not Detected
1,1,1-Trichloroethane	0.030	0.30	0.16	1.6
Trichloroethene	0.030	0.032	0.16	0.17
Toluene	0.030	0.43	0.11	1.6
Tetrachloroethene	0.030	0.034	0.21	0.23
trans-1,2-Dichloroethene	0.15	Not Detected	0.60	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	103	70-130



Air Toxics

Client Sample ID: SMI-IA21-20140216

Lab ID#: 1402300-06A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	c022512	Date of Collection:	2/17/14 12:05:00 PM
Dil. Factor:	1.68	Date of Analysis:	2/25/14 04:27 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 113	0.17	Not Detected	1.3	Not Detected
Chloroform	0.17	Not Detected	0.82	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	95	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	102	70-130



Air Toxics

Client Sample ID: SMI-IA21-20140216

Lab ID#: 1402300-06B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	c022512sim	Date of Collection:	2/17/14 12:05:00 PM
Dil. Factor:	1.68	Date of Analysis:	2/25/14 04:27 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.017	Not Detected	0.043	Not Detected
1,1-Dichloroethene	0.017	0.038	0.067	0.15
1,1-Dichloroethane	0.034	Not Detected	0.14	Not Detected
cis-1,2-Dichloroethene	0.034	Not Detected	0.13	Not Detected
1,1,1-Trichloroethane	0.034	0.27	0.18	1.5
Trichloroethene	0.034	0.034	0.18	0.18
Toluene	0.034	0.38	0.13	1.4
Tetrachloroethene	0.034	Not Detected	0.23	Not Detected
trans-1,2-Dichloroethene	0.17	Not Detected	0.67	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	99	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	102	70-130



Air Toxics

Client Sample ID: SMI-IA22-20140216

Lab ID#: 1402300-07A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	c022513	Date of Collection: 2/17/14 1:11:00 PM
Dil. Factor:	1.79	Date of Analysis: 2/25/14 05:14 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 113	0.18	0.37	1.4	2.8
Chloroform	0.18	Not Detected	0.87	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	97	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	103	70-130



Air Toxics

Client Sample ID: SMI-IA22-20140216

Lab ID#: 1402300-07B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	c022513sim	Date of Collection:	2/17/14 1:11:00 PM
Dil. Factor:	1.79	Date of Analysis:	2/25/14 05:14 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.018	Not Detected	0.046	Not Detected
1,1-Dichloroethene	0.018	0.031	0.071	0.12
1,1-Dichloroethane	0.036	Not Detected	0.14	Not Detected
cis-1,2-Dichloroethene	0.036	Not Detected	0.14	Not Detected
1,1,1-Trichloroethane	0.036	0.37	0.20	2.0
Trichloroethene	0.036	Not Detected	0.19	Not Detected
Toluene	0.036	0.46	0.13	1.7
Tetrachloroethene	0.036	Not Detected	0.24	Not Detected
trans-1,2-Dichloroethene	0.18	Not Detected	0.71	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	100	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	104	70-130



Air Toxics

Client Sample ID: SMI-IA23-20140216

Lab ID#: 1402300-08A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	c022514	Date of Collection:	2/17/14 11:59:00 AM
Dil. Factor:	1.68	Date of Analysis:	2/25/14 06:23 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 113	0.17	0.21	1.3	1.6
Chloroform	0.17	Not Detected	0.82	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	99	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	100	70-130



Air Toxics

Client Sample ID: SMI-IA23-20140216

Lab ID#: 1402300-08B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	c022514sim	Date of Collection: 2/17/14 11:59:00 AM
Dil. Factor:	1.68	Date of Analysis: 2/25/14 06:23 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.017	Not Detected	0.043	Not Detected
1,1-Dichloroethene	0.017	0.024	0.067	0.095
1,1-Dichloroethane	0.034	Not Detected	0.14	Not Detected
cis-1,2-Dichloroethene	0.034	Not Detected	0.13	Not Detected
1,1,1-Trichloroethane	0.034	0.22	0.18	1.2
Trichloroethene	0.034	Not Detected	0.18	Not Detected
Toluene	0.034	0.46	0.13	1.7
Tetrachloroethene	0.034	Not Detected	0.23	Not Detected
trans-1,2-Dichloroethene	0.17	Not Detected	0.67	Not Detected

Container Type: 6 Liter Summa Canister (SIM Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	101	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	103	70-130



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1402300-09A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	c022506	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 2/25/14 11:48 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 113	0.10	Not Detected	0.77	Not Detected
Chloroform	0.10	Not Detected	0.49	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	97	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	96	70-130



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1402300-09B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	c022506sim	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 2/25/14 11:48 AM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Vinyl Chloride	0.010	Not Detected	0.026	Not Detected
1,1-Dichloroethene	0.010	Not Detected	0.040	Not Detected
1,1-Dichloroethane	0.020	Not Detected	0.081	Not Detected
cis-1,2-Dichloroethene	0.020	Not Detected	0.079	Not Detected
1,1,1-Trichloroethane	0.020	Not Detected	0.11	Not Detected
Trichloroethene	0.020	Not Detected	0.11	Not Detected
Toluene	0.020	Not Detected	0.075	Not Detected
Tetrachloroethene	0.020	Not Detected	0.14	Not Detected
trans-1,2-Dichloroethene	0.10	Not Detected	0.40	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	98	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	100	70-130



Air Toxics

Client Sample ID: CCV

Lab ID#: 1402300-10A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	c022502	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 2/25/14 08:36 AM

Compound	%Recovery
----------	-----------

Freon 113	104
Chloroform	104

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	96	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	112	70-130



Air Toxics

Client Sample ID: CCV

Lab ID#: 1402300-10B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	c022502sim	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 2/25/14 08:36 AM

Compound	%Recovery
Vinyl Chloride	92
1,1-Dichloroethene	106
1,1-Dichloroethane	105
cis-1,2-Dichloroethene	110
1,1,1-Trichloroethane	110
Trichloroethene	103
Toluene	105
Tetrachloroethene	110
trans-1,2-Dichloroethene	107

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	96	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	108	70-130



Air Toxics

Client Sample ID: LCS

Lab ID#: 1402300-11A

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	c022503	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 2/25/14 09:25 AM

Compound	%Recovery	Method Limits
Freon 113	122	70-130
Chloroform	107	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	91	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	103	70-130



Air Toxics

Client Sample ID: LCSD

Lab ID#: 1402300-11AA

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	c022504	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 2/25/14 10:07 AM

Compound	%Recovery	Method Limits
Freon 113	124	70-130
Chloroform	108	70-130

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	90	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	107	70-130



Air Toxics

Client Sample ID: LCS

Lab ID#: 1402300-11B

MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	c022503sim	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 2/25/14 09:25 AM

Compound	%Recovery	Method Limits
Vinyl Chloride	94	70-130
1,1-Dichloroethene	121	70-130
1,1-Dichloroethane	109	70-130
cis-1,2-Dichloroethene	127	70-130
1,1,1-Trichloroethane	110	70-130
Trichloroethene	107	70-130
Toluene	108	70-130
Tetrachloroethene	112	70-130
trans-1,2-Dichloroethene	94	60-140

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	92	70-130
Toluene-d8	103	70-130
4-Bromofluorobenzene	108	70-130



Air Toxics

Client Sample ID: LCSD

Lab ID#: 1402300-11BB

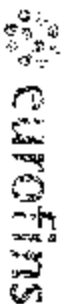
MODIFIED EPA METHOD TO-15 GC/MS SIM/FULL SCAN

File Name:	c022504sim	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 2/25/14 10:07 AM

Compound	%Recovery	Method Limits
Vinyl Chloride	94	70-130
1,1-Dichloroethene	122	70-130
1,1-Dichloroethane	110	70-130
cis-1,2-Dichloroethene	129	70-130
1,1,1-Trichloroethane	111	70-130
Trichloroethene	108	70-130
Toluene	111	70-130
Tetrachloroethene	112	70-130
trans-1,2-Dichloroethene	95	60-140

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	92	70-130
Toluene-d8	105	70-130
4-Bromofluorobenzene	111	70-130



Air Toxics

Sample Transportation Notice

Relinquishing signature on this document indicates that sample is being shipped in compliance with all applicable local, state, federal, national, and international laws, regulations and/or notices of any kind. Air Toxics Limited assumes no liability with respect to the collection, handling, or shipping of these samples. Relinquishing signature also indicates agreement to hold harmless defend and indemnify Air Toxics Limited against any claim, demand, or action, of any kind, related to the collection, handling, or shipping of samples. D.O.T. Hotline (800) 437-4322

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Page 4 of 2

Project Manager Heather T. JohnsonCollected by: Printers Sign Co McDonoughCompany Printers Sign Co Email hjohnson@printersign.comAddress 10000 City San Jose State CA Zip 95131Phone 408-298-1000 Fax 408-298-1001

Project Info:

P.O. # 10000Project # 0201040001 SCProject Name SMI

Can Account

Type: ☒ Normal ☐ Plus

Use Use Only

Furnished by:

Date:

Pressurization Gas:

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Canister Pressure/Vacuum

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1402300

Neurofins

11/12/2011

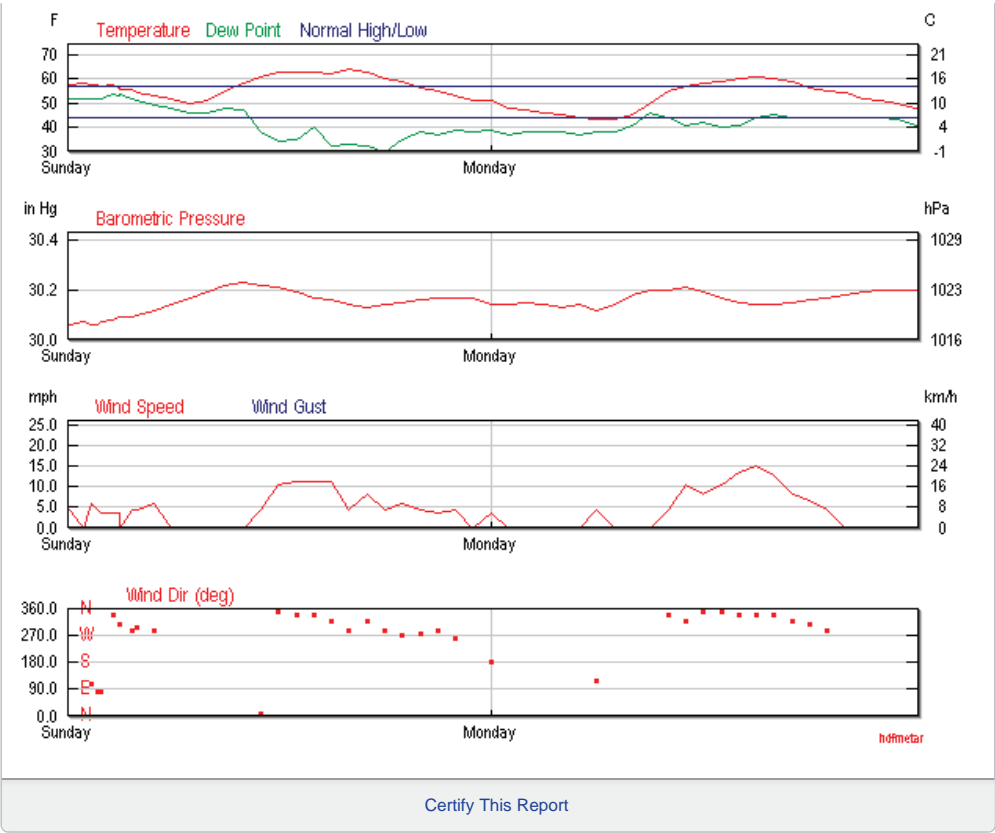
Method : Modified TO-15 HM/Ls (Sp)-AMEC (GR Interest)

Compound	Ret. Limit (ugm3)
Vinyl Chloride	0.028
1,1-Dichloroethene	0.040
1,1-Dichloroethane	0.087
cis-1,2-Dichloroethane	0.079
1,1,1-Trichloroethane	0.11
Trichloroethene	0.11
Toluene	0.075
Tetrachloroethene	0.14
trans-1,2-Dichloroethene	0.40
Freon 113	0.77
Chloroform	0.49

Surrogate	Method Limits
1,2-Dichloroethane-d4	70-130
Toluene-d8	70-130
4-Bromobromobenzene	70-130

Reporting Limits cited do not take into account sample dilution due to container pressurization.

Appendix F
Weather Data



Observations

2014	Temp. (°F)			Dew Point (°F)			Humidity (%)			Sea Level Press. (in)			Visibility (mi)			Wind (mph)			Precip. (in)	Events
Feb	high	avg	low	high	avg	low	high	avg	low	high	avg	low	high	avg	low	high	avg	high	sum	
16	64	57	50	54	44	30	89	60	31	30.23	30.14	30.06	10	10	4	14	5	17	0.04	Rain
17	62	52	42	46	42	37	82	65	47	30.21	30.17	30.12	10	10	10	20	4	22	0.00	

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Appendix G
Data Quality Review Memo

APPENDIX G - QUALITY ASSURANCE/QUALITY CONTROL EVALUATION

Analytical data are the basis for evaluating the environmental conditions at the Intersil/Siemens Superfund Site in Cupertino, California. It is essential that the data are accurate and reflect actual conditions.

To ensure data quality was acceptable for decision-making purposes, ERM-West, Inc. (ERM) reviewed laboratory analytical results for the air samples collected in February 2014 at the former Siemens facility. The purpose of this review is to identify limitations on the use of the data and identify data that should not be used for decision-making purposes. The data quality was assessed and qualifiers were applied following the *USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Data Review* (United States Environmental Protection Agency [USEPA], June 2008).

ERM reviewed data for compliance with the following quality assurance/quality control (QA/QC) and method-prescribed criteria for level II review:

- **Chain-of-Custody:** The chain-of-custody was reviewed to evaluate the integrity of the samples.
- **Canister Vacuum Evaluation:** The condition and vacuum of the summa canisters upon receipt is evaluated.
- **Holding Time:** The period of time between collection of the sample and preparation/analysis of the sample is evaluated. Analyses performed for this project have method-prescribed holding times.
- **Blank Samples:** The analysis of contaminant-free air evaluated. Blank samples for this investigation included method blanks. Detections in a blank sample may indicate laboratory contamination. All samples are evaluated for common laboratory contaminants during the blank evaluation.
- **Spike Samples:** The preparation and analysis of an environmental sample or a blank sample spiked with a subset of target compounds at known concentrations is evaluated. The results of the blank spike analysis measure laboratory accuracy, and results from the environmental sample spike measure potential interferences from the matrix.
- **Surrogate Spikes:** The addition of compounds similar to target compounds of interest that are added to sample aliquots for organic analysis is evaluated. Surrogate spikes measure possible interferences from the sample matrix for the analysis of target compounds.

- **Duplicate Samples:** The preparation and analysis of an additional aliquot of the sample is evaluated. The results from duplicate analysis measure potential heterogeneity of contaminants in the sample.

Level IV review was performed on 20% of the samples in the sampling event. The level IV review was performed on data in package 1402298 and included all of the QA/QC project and/or method-prescribed criteria for level II review plus:

- **Calibration:** The analysis of target analytes at a range of concentrations to develop a graphical plot of instrument response against the different analyte concentrations. An initial calibration curve establishes the graphical plot, and the continuing calibration verification monitors daily instrument linearity against the initial calibration.
- **Instrument Performance Check:** An instrument performance check was performed prior to analysis of samples or standards. The compound 4-bromofluorobenzene (BFB) was used to ensure mass resolution and identification of the mass spectrometer. All ion abundance criteria were met.
- **Internal standards:** The addition of compounds similar to target compounds of interest that are added to sample aliquots for organic analysis. The internal standards are used to quantitatively and qualitatively evaluate retention time and response for each sample.

Potential USEPA qualifiers that may have been applied during the review process are as follows:

- U** (Nondetected): The analyte was reported as detected by the laboratory, but the reported concentrations should be considered nondetected above the laboratory reporting limit.
- J** (Estimated): The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample.
- N** (Tentative identification): The analysis indicated the presence of an analyte for which there was presumptive evidence to make only a "tentative identification."
- NJ** (Estimated tentative identification): The analysis indicated the presence of an analyte that had been "tentatively identified" and the associated numerical value represents its approximate concentration.
- UJ** (Estimated, nondetected): The analyte was not detected above the reported sample quantitation limit; however, the reported quantitation limit was approximate and may or may not have

represented the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

- R** (Rejected): The sample results were rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte could not be verified.

None of the data were rejected during the data review. All data, including data qualified as estimated, are acceptable and can be used for decision-making purposes. The following discussion addresses each of the QA/QC components listed above and the validation results for each of the components.

LEVEL II REVIEW

Chain-of-Custody Discrepancies

In the data package 1402299, a discrepancy was noted between the sample information noted for sample “SMI-IA09-020140216” on the chain-of-custody and on the canister. The laboratory used the information on the canister to process the sample.

Holding Time

The USEPA has established a maximum sample holding time for each analysis. Holding times extending beyond the USEPA maximum or samples that are not properly preserved can negatively affect sample integrity (e.g., loss of volatile compounds, biodegradation) and are qualified depending on the severity of the exceedance and compounds of concern.

ERM has reviewed the analytical results for compliance with the method-prescribed preparation and analysis holding times. None of the data were qualified based on holding time exceedances.

Canister Vacuum Evaluation

The canister vacuums were received at acceptable pressures, with limited exceptions. Three canisters were received with vacuum pressures of zero. All compounds in the samples are qualified as estimated (J/UJ) as shown in Table 1.

Blank Samples

A blank sample consists of contaminant-free reagent air and is prepared and analyzed in the same manner as the samples. The purpose of a blank sample is to determine the presence and magnitude of possible contamination resulting from laboratory, shipping, or other sample-handling activities. If target compounds are detected in a blank sample, then all associated data must be carefully evaluated to determine whether those results have been similarly impacted, or the blank problem is an isolated occurrence not representative of other data.

Method blank samples were analyzed and reported with the site air samples. A method blank was prepared and analyzed with each batch of environmental samples. Method blank samples monitor for potential contamination of samples from the laboratory.

The method blank results were nondetected for the target analytes. No sample data were qualified on the basis of the blank evaluation.

Spike Samples

A spike sample is a QC sample that is prepared and analyzed by the laboratory in the same manner as the samples. The laboratory prepares, analyzes, and reports spike samples to demonstrate proper analysis, detection, and quantification of target compounds. The accuracy of spike samples is assessed by percent recovery (%R), which is calculated as the amount of the detected compound divided by the amount spiked into the sample. The %R is then compared to an established limit range.

Blank spike samples, which are commonly referred to as LCS, consist of an aliquot of contaminant-free air that is spiked with known concentrations of target compounds. The LCS sample monitors laboratory accuracy without the bias of a sample matrix. LCS recoveries outside of acceptable limits may indicate poor laboratory accuracy. The relative percent difference (RPD) between LCS and LCSD are evaluated for laboratory precision.

The LCS and LCSD %R and RPD indicate acceptable laboratory accuracy and precision. No qualifications were required.

Surrogate Spikes

A surrogate spike is used to assess interference from the sample matrix during the analysis. Surrogate spike results are assessed by %R, based on

the concentration of surrogate in the sample divided by the known amount of surrogate added to the sample aliquot.

The surrogate recoveries were compared to the laboratory-generated limits of acceptance. All surrogate recoveries were within acceptable limits. None of the data were qualified for surrogate outliers. The surrogate results indicate that there was minimal interference from the sample matrix.

Duplicate Samples

A duplicate sample is a second aliquot of a sample that is prepared and analyzed in the same manner as the original sample. A duplicate sample analysis is performed to measure the precision of the method and to assess possible matrix heterogeneity.

Three samples were submitted in duplicate. ERM calculated the RPD between detected values in each field duplicate pair. The project workplan established control criteria of <25% RPD for field duplicate precision. The RPDs indicate matrix homogeneity in the samples collected for this sampling event. The calculated RPDs are presented in Table 2. No RPDs exceeded the control criteria; therefore, sample data are not qualified on the basis of field duplicate imprecision.

LEVEL IV REVIEW

Calibration Evaluation

Before an analytical instrument is used for sample analysis, the instrument must be calibrated to be within USEPA method specifications. The purpose of this calibration is to ensure that the instrument is appropriately responsive to measurable chemical concentrations. If an instrument is not properly calibrated, it may not be capable of producing acceptable quantitative, qualitative, and reproducible data. For example, detected concentrations of a given compound that would still be considered valid could contain an undetermined degree of inaccuracy. In the case of nondetections, the reporting limit would be similarly affected; such results would still be considered nondetections.

Two types of calibration data were reviewed. These were initial calibration (ICAL) and continuing calibration verification (CCV). A curve establishes a graphical plot of instrument response against the different analyte concentrations, and the CCV monitors daily instrument linearity against the initial calibration. The ICAL consisted of standards that were

analyzed at five concentrations. These concentrations ranged from the reporting limit to the upper linear range of the instrument. The laboratory calculated the relative standard deviation (RSD) for each of the target analytes included in the ICAL. The laboratory also calculated the relative response factors (RRFs) for the analytes in the ICAL. The reported percent relative standard deviations and RRFs were compared to the method-prescribed acceptance criteria and validation criteria during the data validation. Method TO-15 calibration criteria specify less than 30% RSD for all compounds, with the allowance of two compounds less than 40% RSD. This differs slightly from National Functional Guidelines, which allows for 20% RSD for all compounds, but 40% RSD for certain poor responders. ERM deferred to the method criteria, as TO-15 differs slightly from the Contract Laboratory Program method that National Functional Guidelines is based upon.

A CCV is analyzed every 12 hours to ensure the instrument response is still within method-performance criteria for linearity. The CCV consisted of analyzing a standard at one concentration; the concentration of this standard was generally in the mid-range of the ICAL standard concentrations. The laboratory calculated the percent difference (%D) between CCV and the ICAL. The laboratory calculated the CCV RRFs. The %Ds and RRFs were then compared to the method-prescribed acceptance criteria and validation criteria during the data validation. Method TO-15 calibration verification criteria specify less than 30%D for all target compounds. This is more stringent than the National Functional Guidelines criterion of 40%D. Results quantitated using an unacceptable %D or RRF value may be subject to error.

The ICAL and CCV results were within method TO-15 acceptable limits for target analytes; therefore, sample data are not qualified on the basis of evaluation of equipment calibration.

Instrument Performance Check

Prior to the analysis of any calibration standards, blanks, or field samples, the laboratory must establish that the analytical instrument meets all method-specified mass spectral ion abundance criteria. The laboratory must perform a tune using BFB at the beginning of each 24-hour analysis day. The BFB tune must meet the method ion abundance criteria to be considered valid. Calibration or analysis may not begin until after a valid tune has been analyzed. If the tune fails, the laboratory must inspect the system for problems, fix any problems, and rerun the tune. Analysis may not proceed until a valid tune is analyzed.

The BFB tunes were performed at the correct frequency and met ion abundance criteria; therefore, sample data are not qualified on the basis of review of instrument performance.

Internal Standard Evaluation

Internal standards (ISs) are used in gas chromatograph/mass spectrometer (GC/MS) analyses. A constant amount of IS is added to all standards and samples. The ratio of the peak area or height of the target analyte to the peak area or height of the IS is compared to a similar ratio derived for each calibration standard. The target analyte concentration is calculated relative to that of the IS.

For TO-15 analyses, IS areas or heights must be between 60% and 140% of the IS area or height from the mean area or height of the IS in the most recent valid calibration. The laboratory must re-prepare and reanalyze any sample, standard, or blank that does not meet this criterion. If a sample cannot be reanalyzed or the IS response is still outside the method-specified limits, the laboratory must include a discussion of the possible cause, and any effects on data usability.

The IS areas that were reviewed met method criteria; therefore, sample data are not qualified on the basis of review of internal standards.

OVERALL ASSESSMENT

All qualified data can be used for decision-making purposes; however, the limitation identified by the applied qualifier should be considered when using the data. The quality of the data generated during this investigation is acceptable for the preparation of technically defensible documents.

Table 1
Samples with Vacuum Pressure Outside of Acceptable Limits
February 2014 Indoor Air Samples
Intersil/Siemens Site
Cupertino, California

Lab Package	Sample ID	Vacuum Pressure (inches mercury)	Compound	ERM Qualifier
1402298	SMI-IA04-20140216	0.0	All	J/UJ
1402298	SMI-IA07-20140216	0.0	All	J/UJ
1402299	SMI-IA15-20140216	0.0	All	J/UJ

Lab reports reviewed: 1402298, 1402299, 1402300

Key:

J/UJ = Detected/nondetected compounds are qualified as estimated

Table 2
Field Duplicate Results and Calculated Relative Percent Differences
February 2014 Indoor Air Samples
Intersil/Siemens Site
Cupertino, California

Lab Package	Sample/Duplicate ID	Analysis	Compound	Concentration		Report Limit	Units	RPD
				Sample	Duplicate			
1402298/ 1402299	SMI-IA08-20140216/ SMI-IA08D-20140216	TO-15 SIM	Toluene	1.1	1.1	0.13/0.13	ug/m3	0
1402299	SMI-IA09-20140216/ SMI-IA09D-20140216	TO-15 SIM	1,1,1-Trichloroethane	0.50	0.58	0.18/0.18	ug/m3	15
1402299	SMI-IA09-20140216/ SMI-IA09D-20140216	TO-15 SIM	Trichloroethene	0.63	0.62	0.18/0.18	ug/m3	2
1402299	SMI-IA09-20140216/ SMI-IA09D-20140216	TO-15 SIM	Toluene	1.5	1.5	0.12/0.13	ug/m3	0
1402299/ 1402300	SMI-IA16-20140216/ SMI-IA16D-20140216	TO-15 SIM	1,1-Dichloroethene	0.11	0.11	0.076/0.068	ug/m3	0
1402299/ 1402300	SMI-IA16-20140216/ SMI-IA16D-20140216	TO-15 SIM	1,1,1-Trichloroethane	1.1	1.3	0.21/0.19	ug/m3	17
1402299/ 1402300	SMI-IA16-20140216/ SMI-IA16D-20140216	TO-15 SIM	Toluene	1.4	1.5	0.14/0.13	ug/m3	7

Data packages reviewed: 1402298, 1402299, 1402300

Key:

RPD = Relative percent difference

ug/m3 = micrograms per cubic meter